

FINAL
ENVIRONMENTAL IMPACT STATEMENT

FOR

SANTO DOMINGO PUEBLO/
BUREAU OF LAND MANAGEMENT
LAND EXCHANGE



U.S. Department of the Interior
Bureau of Land Management
Albuquerque Field Office



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Albuquerque Field Office

435 Montano Road, N.E.

Albuquerque, New Mexico 87107

www.nm.blm.gov

IN REPLY REFER TO:

NMNM 101521

2200 (010)

March 2002

Dear Reader:

Enclosed is the Final Environmental Impact Statement (FEIS) for the Bureau of Land Management /Santo Domingo Pueblo Land Exchange.

This FEIS documents the Bureau of Land Management's (BLM) analysis of three alternatives for exchanging lands owned by the BLM for private lands. The private lands lie in Santa Fe County adjacent to the La Cienega Area of Critical Environmental Concern (ACEC) and in Taos County within the Orilla Verde Recreation Area (OVRA), and are identified as high-priority acquisition areas by the BLM.

The exchange was proposed to allow lands having high traditional cultural values for the Santo Domingo Pueblo go into pueblo ownership. In exchange, the BLM would acquire high-value lands adjacent to the agency's La Cienega ACEC and within the OVRA. Completion of the proposed exchange would consolidate the BLM's land ownership in these areas of New Mexico. The exchange would also help reduce conflicts between public land users and private landowners, eliminate development that is inconsistent with the specially designated areas, and enhance the BLM's management flexibility. When the newly exchanged pueblo lands are held in trust by the Bureau of Indian Affairs, pueblo uses would be aided through the tribal governments' direct supervision.

This FEIS includes changes to the Draft Environmental Impact Statement based on public comments, staff review, and the availability of updated information. No substantial changes have been made in the analysis of impacts from the proposed action and alternatives.

Alternative A, the Proposed Action, involves an equal-value exchange of approximately 7,376 acres of BLM lands, with a conservation easement reserved to the United States for 470 acres of private lands in Santa Fe County and approximately 175 acres in Taos County. The private land in Santa Fe County is located adjacent to the La Cienega ACEC, and the Taos County lands are located along the Rio Grande National Wild and Scenic River Corridor and within the OVRA. The private lands would be managed under the principles of multiple use, consistent with the Taos Resource Management Plan (1988), as amended.

Alternative B is essentially the same as Alternative A, except that the conservation easement would not be reserved. This alternative assumes that mining would be developed on an additional 1,300 acres and residential/business development would occur on 1,500 acres of the selected lands. These lands would be accessible through County Road 252A (formerly State Road 22).

Alternative C, the No Action Alternative, is required by the National Environmental Policy Act of 1976. The proposed land exchange would not occur, so the BLM would not benefit from consolidating the public lands adjacent to La Cienega ACEC and along the Rio Grande National Wild and Scenic River Corridor and the OVRA.

After the Record of Decision is published, interested parties will have 45 days to protest the decision (as described at Title 43 of the Code of Federal Regulations, Part 2201.7-1(b)). After this period the decision may be implemented. In addition, the decision is appealable for 30 days from the date of publication on a Notice of Availability in the Federal Register as required under the Council of Environmental Quality regulations for National Environmental Policy Act compliance.

We appreciate your interest in the management of public lands.

Sincerely,

A handwritten signature in cursive script that reads "Edwin J. Singleton". The signature is written in dark ink and is positioned above the printed name and title.

Edwin J. Singleton
Field Manager

Enclosure

**Environmental Impact Statement for
the Proposed BLM/Santo Domingo Land Exchange**

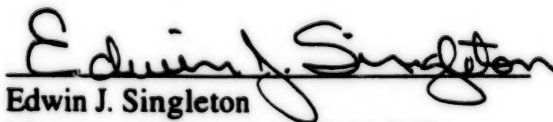
Draft [] Final [X]

United States Department of the Interior, Bureau of Land Management

1. Type of Action: Administrative [X] Legislative []
2. This Final Environmental Impact Statement describes and analyzes three alternatives for a land exchange involving public land north of County Road 252 A (formerly State Road 22) and south of the Santo Domingo Reservation and private lands of equal value, acquired by the Pueblo, within high priority acquisition areas (as identified in the Taos Resource Management Plans [RMPs], as amended). The alternatives are: (A) Proposed Action (exchange public lands with a Conservation Easement on all except 980 acres), (B) Exchange public lands without a Conservation Easement, and (C) No Action Alternative.
3. Comments on the draft EIS from the individuals, groups and agencies and BLM responses to those comments are included in this document.
4. For further information, contact:

 Debby Lucero
 Realty Specialist
 Bureau of Land Management
 435 Montano Road NE
 Albuquerque, New Mexico 87107
5. Date Final Filed with Environmental Protection Agency: March 22, 2002.

APPROVED:



Edwin J. Singleton
Manager, Albuquerque Field Office

**FINAL
ENVIRONMENTAL IMPACT STATEMENT
FOR**

**SANTO DOMINGO PUEBLO/
BUREAU OF LAND MANAGEMENT
LAND EXCHANGE**

March 2002

**U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ALBUQUERQUE FIELD OFFICE
ALBUQUERQUE, NEW MEXICO**

BLM/NM/PL-02-004-7122

TABLE OF CONTENTS

SUMMARY COMPARISON OF ALTERNATIVES	S-1
CHAPTER 1- PURPOSE AND NEED	1-1
INTRODUCTION	1-1
NEED FOR THE PROPOSED ACTION	1-1
CONFORMANCE WITH LAND USE PLANS	1-1
CHAPTER 2- PROPOSED ACTION AND ALTERNATIVES	2-1
ALTERNATIVE A (Proposed Action Alternative)	2-1
ALTERNATIVE B (No Conservation Easement)	2-2
ALTERNATIVE C (No Action Alternative)	2-3
ALTERNATIVES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS	2-3
Map 1 - BLM/Santo Domingo Exchange Selected Lands	2-4
Map 2 - Right-of-Way Corridor	2-5
Map 3 - Land Owner Access Roads Identified on Selected Lands	2-6
Map 4a - Area of Lands Identified for Acquisition (Upper Rio Puerco, AFO)	2-7
Map 4b - Area of Lands Identified for Acquisition (Petaca Pinta, AFO)	2-8
Map 4c - Area of Lands Identified for Acquisition (El Malpais, AFO)	2-9
Map 4d - Lands Identified for Acquisition (Taos Field Office)	2-10
Map 4e - Map Location	2-11
Map 4f - BLM/Santo Domingo Land Exchange Offered Land (Santa Fe County)	2-12
Map 4g - BLM/Santo Domingo Land Exchange Offered Lands (Taos County)	2-13
CHAPTER 3- AFFECTED ENVIRONMENT	3-1
INTRODUCTION	3-1
SANTO DOMINGO PUEBLO SETTING	3-1
REGIONAL SETTING	3-1
Selected Lands	3-1
Offered Lands	3-1
NATURAL ENVIRONMENT	3-1
Ecological Sites/Vegetation (Selected Lands)	3-1
Ecological Sites/Vegetation (Offered Lands)	3-2
Threatened, Endangered and Other Special Status Species (Selected and Offered Lands)	3-2
Water Resources (Offered Lands)	3-4
Wildlife (Selected Lands)	3-4
Wildlife (Offered Lands)	3-5
Geology/Paleontology (Selected Lands)	3-5
Geology/Paleontology (Offered Lands)	3-5
Minerals (Selected Lands)	3-6
Minerals (Offered Lands)	3-6
Land Uses (Selected Lands)	3-6
Land Uses (Offered Lands)	3-7
Wilderness (Selected Lands)	3-7
Wilderness (Offered Lands)	3-7
Recreation (Selected Lands)	3-7
Recreation (Offered Lands)	3-8
Visual Resources (Selected and Offered Lands)	3-8
Air Quality (Selected and Offered Lands)	3-8
Noise (Selected and Offered Lands)	3-8
Hazardous Materials (Selected Lands)	3-9
Hazardous Materials (Offered Lands)	3-9
Cultural Resources (Selected Lands)	3-9
Cultural Resources (Offered Lands)	3-9
American Indian Uses (Selected Lands)	3-9
American Indian Uses (Offered Lands)	3-10
Rangeland Management (Selected and Offered Lands)	3-10

CHAPTER 4- ENVIRONMENTAL CONSEQUENCES	4-1
INTRODUCTION	4-1
GENERAL ASSUMPTIONS AND GUIDELINES	4-1
LAWS AND EXPLANATION OF PROPOSED LAND EXCHANGE PROCESS	4-1
DETAILED IMPACT ANALYSIS BY ALTERNATIVE, BY RESOURCE	4-1
Impacts to Ecological Sites/Vegetation (Selected and Offered Lands)	4-1
Impacts to Threatened, Endangered and other Special Status Species (Selected and Offered Lands)	4-2
Impacts to Water Resources (Selected and Offered Lands)	4-2
Impacts to Wildlife (Selected Lands)	4-2
Impacts to Wildlife (Offered Lands)	4-2
Impacts to Geology & Paleontology (Selected Lands)	4-3
Impacts to Geology & Paleontology (Offered Lands)	4-3
Impacts to Mineral Resources (Selected Lands)	4-3
Impacts to Mineral Resources (Offered Lands)	4-3
Impacts to Land Uses (Selected Lands)	4-4
Impacts to Land Uses (Offered Lands)	4-4
Impacts to Wilderness (Selected Lands)	4-4
Impacts to Wilderness (Offered Lands)	4-4
Impacts to Recreation (Selected Lands)	4-4
Impacts to Recreation (Offered Lands)	4-4
Impacts to Visual Resources (Selected Lands)	4-4
Impacts to Visual Resources (Offered Lands)	4-5
Impacts to Air Quality and Noise (Selected and Offered Lands)	4-5
Impacts Related to Hazardous Materials (Selected Lands)	4-5
Impacts Related to Hazardous Materials (Offered Lands)	4-5
Impacts to Cultural Resources (Selected Lands)	4-6
Impacts to Cultural Resources (Offered Lands)	4-6
Impacts to American Indian Uses (Selected Lands)	4-6
Impacts to American Indian Uses (Offered Lands)	4-6
Impacts to Rangeland Management (Selected Lands)	4-6
Impacts to Rangeland Management (Offered Lands)	4-6
Impacts to Socio-Economic Conditions (Selected Lands)	4-7
Impacts to Socio-Economic Conditions (Offered Lands)	4-7
IMPACTS OF ALTERNATIVE B (NO CONSERVATION EASEMENT)	4-7
Impacts to Ecological Sites/Vegetation (Selected and Offered Lands)	4-7
Impacts to Threatened, Endangered and other Special Status Species (Selected and Offered Lands)	4-8
Impacts to Water Resources (Selected Lands)	4-8
Impacts to Wildlife (Selected Lands)	4-8
Impacts to Wildlife (Offered Lands)	4-8
Impacts to Geology & Paleontology (Selected Lands)	4-8
Impacts to Geology & Paleontology (Offered Lands)	4-8
Impacts to Mineral Resources (Selected Lands)	4-8
Impacts to Mineral Resources (Offered Lands)	4-8
Impacts to Land Uses (Selected Lands)	4-8
Impacts to Land Uses (Offered Lands)	4-8
Impacts to Wilderness (Selected Lands)	4-8
Impacts to Wilderness (Offered Lands)	4-9
Impacts to Recreation (Selected Lands)	4-9
Impacts to Recreation (Offered Lands)	4-9
Impacts to Visual Resources (Selected Lands)	4-9
Impacts to Visual Resources (Offered Lands)	4-9
Impacts to Air Quality and Noise (Selected and Offered Lands)	4-9
Impacts Related to Hazardous Materials (Selected and Offered Lands)	4-9
Impacts to Cultural Resources (Selected Lands)	4-9
Impacts to Cultural Resources (Offered Lands)	4-10
Impacts to American Indian Uses (Selected Lands)	4-10
Impacts to American Indian Uses (Offered Lands)	4-10
Impacts to Rangeland Management (Selected Lands)	4-10
Impacts to Rangeland Management (Offered Lands)	4-10
Impacts to Socio-Economic Conditions (Selected and Offered Lands)	4-10

IMPACTS OF THE NO ACTION ALTERNATIVE (SELECTED AND OFFERED LANDS)	4-10
Impacts to Ecological Sites/Vegetation	4-10
Impacts to Threatened, Endangered, and Other Species	4-10
Impacts to Water Resources	4-10
Impacts to Wildlife	4-10
Impacts to Geology/Minerals/Paleontology	4-10
Impacts to Land Uses	4-11
Impacts to Wilderness	4-11
Impacts to Recreation	4-11
Impacts to Visual Resources	4-11
Impacts to Air Quality and Noise	4-11
Impacts Related to Hazardous Materials	4-11
Impacts to Cultural Resources (Selected Lands)	4-11
Impacts to Cultural Resources (Offered Lands)	4-11
Impacts to American Indian Uses (Selected Lands)	4-11
Impacts to American Indian Uses (Offered Lands)	4-11
Impacts to Rangeland Management	4-11
Impacts to Socio-Economic Conditions	4-12
SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY	4-12
IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES	4-12
CUMULATIVE IMPACTS (SELECTED LANDS)	4-13
Environmental Justice	4-14
CHAPTER 5- CONSULTATION AND COORDINATION	5-1
INTRODUCTION	5-1
CONSULTATION REGARDING WILDLIFE	5-1
PERSONS AND AGENCIES CONSULTED (PUBLIC PARTICIPATION)	5-1
LIST OF PREPARERS	5-2
COMMENT LETTERS AND RESPONSES	5-4
APPENDIX A- MISSION OF THE BUREAU OF LAND MANAGEMENT	A-1
APPENDIX B- ACRONYMS	B-1
APPENDIX C- MAJOR LAWS AND REGULATIONS GOVERNING PROPOSED LAND EXCHANGE	C-1
APPENDIX D- BIOLOGICAL ASSESSMENT FOR PROPOSED SANTO DOMINGO LAND EXCHANGE	D-1
APPENDIX E- HYDROGEOLOGIC SETTING OF PROPOSED FEDERAL LAND EXCHANGE AREA	E-1
APPENDIX F- GLOSSARY OF TERMS	F-1
APPENDIX G- MAILING LIST FOR LAND EXCHANGE EIS	G-1
APPENDIX H- SANTO DOMINGO LAND EXCHANGE FEDERAL LAND - LEGAL LAND DESCRIPTION	H-1
APPENDIX I- SELECTED LAND RESERVATIONS RESERVATION OF CONSERVATION EASEMENT	I-1
APPENDIX J- REFERENCES CITED	I-1

SUMMARY COMPARISON OF ALTERNATIVES

Element/Resource	Proposed Action	Alternative B (No Conservation Easement)	No Action Alternative
Selected Land Identified for Potential Disposal	7,376 acres with reservation of a conservation easement on 6,396 acres	7,376 acres without a reservation of a conservation easement -assumes 2,280 acres of sand and gravel mining and 1,500 acres of residential/businesses	Retain 7,376 acres in Federal ownership
Offered Land Identified for Acquisition	-approximately 645 acres	Acreage not specifically determined. -equal value based on fair market value within high priority acquisition areas	N/A
<u>Ecological Sites/Vegetation</u> acreage maintained	6,396 acres	3,596 acres	6,396 acres
acreage disturbed	980 acres	3,780 acres	980 acres
<u>Threatened, Endangered and other Special Status Species</u>	No Effect	No Effect	No Effect
<u>Water Resources</u> water use (for sand and gravel mining only per year)	5 acre feet	43 - 77 acre feet	10 acre feet
<u>Wildlife</u> habitat disturbed over life of sand and gravel mining	980 acres	2,280 acres	980 acres
residential/business development	0	1,500 acres	0
<u>Geology & Paleontology</u>	no impacts identified	no impacts identified	no impacts identified
<u>Mineral Resources</u> cubic yards of sand and gravel accessible for development	31 million	63 million	160 million
cubic yards of sand and gravel not accessible due to conservation easement	129 million	97 million	0

8

Summary Table (Con't)

Element/Resource	Proposed Action	Alternative B (No Conservation Easement)	No Action Alternative
<u>Land Uses</u> acreage available for general public access and use	0	0	7,376 acres
acreage available for lease under the R&FP Act	0	0	7,376 acres
acreage available for livestock grazing	7,266 acres	7,076 acres	7,376 acres
acreage available for right-of-way use under Tribal and Conservation Easement conditions	7,376 acres	7,376 acres	0
acreage available for right-of-way use under Federal regulations	0	0	7,376 acres
<u>Wilderness</u> acres of wilderness or WSA	0	0	0
<u>Recreation</u> available for non- commercial, non- competitive and non- organized activities to general public	0	0	7,376 acres
available for multiple recreational use to Pueblo membership	7,376 acres	7,376 acres	7,376 acres
<u>Visual Resources</u> acres with Visual Resource Management Classification (VRM)	0	0	7,376 acres
unclassified	7,376 acres	7,376 acres	0
<u>Air Quality and Noise</u> sand and gravel sites creating low level noise and air-borne particulate matter	1 site	2 sites	2 sites
<u>Hazardous Materials</u>	the ESA revealed no hazardous material sites	same as proposed action	same as proposed action
<u>Cultural Resources</u> provision for resource protection	patent reservation on 980 acres	None	Federal laws

Summary Table (Con't)

Element/Resource	Proposed Action	Alternative B (No Conservation Easement)	No Action Alternative
<u>American Indian Uses</u> privacy assured by Pueblo control	7,376 acres	7,376 acres	0
<u>Rangeland Management</u> current permittee use in AUM's	0	0	2,272 AUM's
<u>Socio Economic Impacts</u> Tribal control for privacy for traditional cultural use	7,376 acres	7,376 acres	0
loss of free general public use	7,376 acres	7,376 acres	0
Value of sand and gravel to be developed, at current (2000) price \$1.10 per cubic yard	\$34,606,000	\$69,212,000	\$1,769,828,000
Value of sand and gravel that would not be developed, at current (2000) price \$1.10 per cubic yard	\$1,735,222,000	\$1,700,616,000	\$0

CHAPTER 1

PURPOSE AND NEED

INTRODUCTION

The Albuquerque Field Office of the Bureau of Land Management (BLM) is proposing to exchange approximately 7,376 acres of public land in Sandoval and Santa Fe Counties for private lands of equal value. The proposed action is a land exchange between the BLM and the Pueblo of Santo Domingo. The proposed exchange would occur under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA), as amended by the Federal Land Exchange Facilitation Act of August 20, 1988 (FLEFA). (See Appendix C for summaries of these laws.)

The proposed action involves the BLM exchanging approximately 7,376 acres of Federal surface and subsurface estate north of County Road 252A (formerly State Road 22) and south of the Santo Domingo Reservation (see Map 1) to the Santo Domingo Pueblo. The pueblo in turn would transfer to the BLM private lands of equal value. A conservation easement (see Appendix I) would be retained in Federal ownership on all the selected lands except for approximately 980 acres.

For purposes of this Environmental Impact Statement (EIS), federal lands selected for acquisition by the Pueblo are called "Selected Lands." Private lands are called "Offered Lands" where we refer to lands to be offered by the Pueblo to BLM in exchange for the Selected Lands. The proposed land exchange is explained in more detail in Chapter 2 (Proposed Action and Alternatives).

The BLM has developed this EIS to analyze the probable environmental impacts of the proposed action and alternatives.

NEED FOR THE PROPOSED ACTION

The Selected Lands that would leave Federal ownership are mainly in Sandoval County in BLM's Albuquerque Field Office jurisdiction, a small part on the east end is in Santa Fe County (see Map 1). The lands to be acquired by the Federal government will be under the jurisdiction of the Albuquerque or Taos field offices.

Completion of the proposed exchange would enhance BLM's land ownership consolidation in these areas of New Mexico. The exchange would also help reduce conflicts between public land users and private land owners, eliminate development that is inconsistent with the specially designated areas, and facilitate BLM's management flexibility. In addition, the Santo Domingo Pueblo would acquire lands that have been identified as having significant traditional cultural values to them.

CONFORMANCE WITH LAND USE PLANS

Land ownership adjustments were one of the critical issues that drove the preparation of two land use plans for BLM's Albuquerque District: the Rio Puerco Resource Management Plan (RMP; USDI, BLM, 1986) and the Taos RMP (USDI, BLM, 1988b). The Rio Puerco Resource Area and the Taos Resource Area are now separate field offices under the current BLM administration. According to these RMPs, consolidating the public land to improve resource manageability is the highest priority for the Lands and Realty Program in the Albuquerque Field Office. Both the Rio Puerco and Taos RMPs (as amended) identified certain non-public lands within specially managed areas that the BLM would like to acquire to augment various resource programs.

In addition to the guidance outlined in the RMPs, the Statewide Wilderness Final Environmental Impact Statement (USDI, BLM, 1988a) further identified non-public lands within and adjacent to certain wilderness study areas (WSAs) for future acquisition by the Albuquerque District (now the Albuquerque Field Office). Land ownership adjustments through exchanges are the BLM's preferred method for achieving these objectives.

This proposed action is subject to the Rio Puerco RMP (approved November 1986, maintained and reprinted October 1992) and the Taos RMP (1988), as amended. As required by 43 CFR 1610.5, the Proposed Action Alternative of this EIS has been reviewed to ensure that it conforms with the terms and conditions of the RMP's.

The Rio Puerco RMP categorizes lands in three different management classes: (1) Management Class A lands represent the highest priority for BLM retention or acquisition based on natural and cultural resources values and/or opportunities to improve management by consolidating land ownership patterns. (2) Management Class B lands are identified for retention by the BLM. While Class B lands are not a high priority for consolidation, they can be made available for exchange to acquire non-public lands in high priority (Management Class A) retention zones. (3) Public lands identified for disposal are categorized as Management Class C. The Taos RMP does not distinguish between the three management classes; it categorizes lands as either for disposal or retention/acquisition.

All of the Selected Land is identified as Management Class B in the Rio Puerco RMP.

This proposed action is in conformance with both the Rio Puerco and Taos RMP's.

(All of the documents referenced previously are available for public review at the BLM's Albuquerque Field Office, 435 Montaña NE, Albuquerque, NM.)

CHAPTER 2

PROPOSED ACTION AND ALTERNATIVES

ALTERNATIVE A (Proposed Action Alternative)

The proposed action is a land exchange between the BLM's Albuquerque Field Office and the Pueblo of Santo Domingo. The exchange would take place under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA), as amended by the Federal Land Exchange Facilitation Act of August 20, 1988 (FLEFA).

The Proposed Action Alternative involves the BLM exchanging approximately 7,376 acres of Federal surface and subsurface estate north of County Road 252A (formerly State Road 22) and south of the Santo Domingo Reservation (see Map 1) to the Santo Domingo Pueblo. The Santo Domingo Pueblo would transfer to the BLM private lands of equal value, yet to be acquired by the Pueblo, within high priority acquisition areas with priorities given to ACEC's, WSA's, National Conservation Area, habitat management and other special management areas (as identified in the Rio Puerco and the Taos Resource Management Plans [RMPs]).

The final Offered Lands proposed for exchange include two parcels—one in Santa Fe County and one in Taos County. The parcel located in Santa Fe County consists of approximately 470 acres adjacent to La Cienega ACEC. The parcel located in Taos County consists of approximately 175 acres within the Orilla Verde Recreation Area (OVRA) (See Maps 4(f) and 4(g). The United States owns all minerals in the Santa Fe County parcel and only the gold, silver and quicksilver in the Taos County parcel. The remaining mineral estate on the Offered Land in Taos County would be transfer to the BLM.

The Selected Lands would be transferred in fee to the Pueblo and would eventually become lands managed by the Bureau of Indian Affairs (BIA) in trust. A conservation easement, would be retained in Federal (BLM) ownership on all the Selected Lands except for approximately 980 acres within the W $\frac{1}{2}$ of Section 25 and Sections 26 and 35, Township 14 North, Range 6 East NMPM (see Map 1). These lands have been identified by the pueblo for probable development of sand and gravel. The purpose of the conservation easement is to conserve important habitat for wildlife, to protect rare or unique native plants now or later identified, to conserve the diverse vegetative communities and the wildlife inhabiting these communities, and to preserve the lands in their present condition, but without interfering with any uses of the property by the Santo Domingo Pueblo consistent with the protection of the conservation values.

The conservation easement would prevent most forms of development and most surface disturbance activities would require BIA approval once the lands are placed in trust.

The patent transferring the Selected Lands would also contain a reservation protecting historic properties consistent with the National Historic Preservation Act (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470; as amended; see Appendix D) until the lands are transferred to the United States in trust for the benefit of the Santo Domingo Pueblo. The patent reservation would be placed on the 980 acres within the W $\frac{1}{2}$ of Section 25 and Sections 26 and 35, T. 14 N., R. 6 E., and would be administered by the BIA.

Except for the conservation easement to be reserved on most of the Selected Lands, both surface and subsurface estates would be transferred, ensuring that management problems were minimized and a future exchange would not be necessary.

A small portion of a BLM rights-of-way corridor, approximately three miles in length, crosses through the center of the Selected Lands. The corridor was designated in the resolution of the Rio Puerco RMP Rights-of-Way Corridors Issue as a preferred location for future transmission line placements (see Map 2). The corridor was designed to prevent haphazard rights-of-way placement and to reduce adverse environmental impacts. The corridor would be included in the transfer to the Santo Domingo Pueblo.

The Sandoval County-claimed road, County Road 252A (formerly State Road 22), within the Selected Lands would be issued a right-of-way before the exchange would occur. (*Official records show that the state had a valid right-of-way which has now been assigned to Sandoval County.*) Landowners' access would be established through agreements with the Santo Domingo Pueblo. Map 3 shows the roads identified by landowners as being historical access roads within the Selected Lands.

The Santo Domingo Pueblo would transfer private lands to the BLM which they would purchase within certain blocks of lands identified as high priority acquisition areas. The value of the Offered Lands would equal the value of the Selected Lands described previously. The lands to be purchased by the Pueblo are within areas identified as Management Class A in the Rio Puerco RMP which are the field office's highest priority for consolidation of public lands. Other lands identified for possible purchase by the Pueblo are within high priority acquisition areas administered by the Taos Field Office.

The Offered Lands that the BLM would acquire within Special Management Areas (SMAs) would become incorporated into the specific specially designated area. Any lands acquired within Wilderness Study Areas (WSAs) would be managed under the Interim Management Policy for Lands Under Wilderness Review (USDI, BLM, 1995). Lands acquired within a withdrawal area will be subject to the terms

and conditions of that withdrawal. The Offered Lands in other areas would be managed under the principal of multiple use consistent with the RMP.

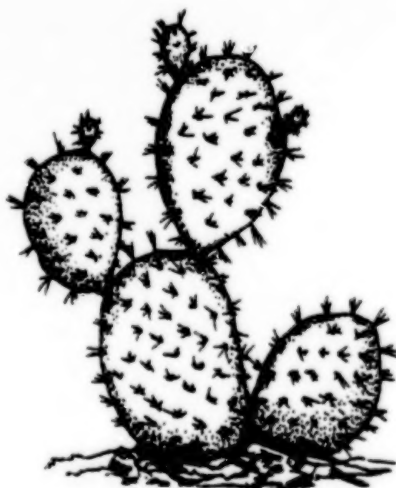
The final Offered Lands in Santa Fe and Taos Counties will be managed consistent with the Taos RMP, as amended.

The Selected Lands that would leave Federal ownership are within the area administered by the BLM's Albuquerque Field Office. The lands to be acquired by the Federal government will be within the areas administered by the Taos Field Office. Completing the proposed exchange would enhance the BLM land ownership consolidation, as well as reduce conflicts between public land users and private land owners eliminate inappropriate development of private inholdings in specially designated areas, and increase management flexibility for the BLM.

ALTERNATIVE B (No Conservation Easement)

Alternative B is essentially the same as Alternative A except that the conservation easement would not be reserved; the following is a detailed explanation of the alternative.

Alternative B is a land exchange between the BLM and the Pueblo of Santo Domingo. The exchange would occur under the authority of FLPMA, as amended by FLEFA. This alternative involves the BLM exchanging approximately 7,376 acres of Federal surface and subsurface estate north of County Road 252A (formerly State Road 22) and south of the Santo Domingo Reservation (see Map 1) to the Santo Domingo Pueblo. The Santo Domingo Pueblo would transfer to the BLM private lands of equal value, yet to be acquired by the Pueblo, within high priority acquisition areas as identified in the Rio Puerco RMP and certain parcels identified in the Taos RMP. The Selected Lands would be transferred in fee to the Pueblo, and eventually would become lands managed by the BIA in trust.



The final Offered Lands proposed for exchange include two parcels—one in Santa Fe County and one in Taos County. The parcel located in Santa Fe County consists of approximately 470 acres adjacent to La Cienega ACEC. The parcel located in Taos County consists of approximately 175 acres along the Rio Grande National Wild and Scenic River Corridor and within the Orilla Verde Recreation Area (OVRA) (See Maps 4(f) and 4(g)). The United States owns all minerals in the Santa Fe County parcel and only the gold, silver and quicksilver in the Taos County parcel. The remaining mineral estate on the Offered Land in Taos County would be transfer to the BLM.

Both surface and subsurface estates would be transferred, ensuring that management problems were minimized and a future exchange would not be necessary.

A small portion of a BLM rights-of-way corridor, approximately three miles in length, crosses through the center of the Selected Lands. The corridor was designated in the resolution of the Rio Puerco RMP Rights-of-Way Corridors Issue as a preferred location for future transmission line placements (see Map 2). The corridor was designed to prevent haphazard rights-of-way placement and to reduce adverse environmental impacts. The corridor would be included in the transfer to the Santo Domingo Pueblo.

The Sandoval County-claimed road, County Road 252A (formerly State Road 22), within the Selected Lands would be issued a right-of-way before the exchange would occur. (*Official records show that the state had a valid right-of-way which has now been assigned to Sandoval County.*) Landowners' access would be established through agreements arrived at with the Santo Domingo Pueblo. Map 3 shows the roads identified by landowners as being historical access roads within the Selected Lands.

The Santo Domingo Pueblo would transfer private lands to the BLM which they would purchase within certain blocks of lands identified by the BLM as high priority acquisition areas. The value of the Offered Lands would equal the value of the Selected Lands described previously. The lands to be purchased by the Pueblo are within areas identified as Management Class A in the Rio Puerco RMP which are the field office's highest priority for consolidation of public lands. Other lands identified for possible purchase by the Pueblos are within high priority acquisition areas administered by the Taos Field Office.

The Offered Lands that the BLM would acquire within SMAs would become incorporated into the specific specially designated area. Any lands acquired within WSAs would be managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review (USDI, BLM, 1979). Lands acquired within a withdrawal area will be subject to the terms and conditions of that withdrawal. The Offered Lands in other areas would be managed under the principal of multiple use consistent with the RMP.

The final Offered Lands in Santa Fe and Taos Counties will be managed consistent with the Taos RMP, as amended.

The Selected Lands that would leave Federal ownership are within the area administered by the Albuquerque Field Office. The lands to be acquired by the Federal government will be within the areas administered by Albuquerque and/or Taos Field Offices. Completion of the proposed exchange would enhance the BLM land ownership consolidation, as well as reduce conflicts between public land users and private landowners, eliminate development that is inconsistent with the specially designated areas, and facilitate BLM's management flexibility.

This alternative assumes that mining would be developed on an additional 1,300 acres and residential/business development would occur on 1,500 acres of the selected lands. These lands would be accessible through County Road 252A (formerly State Road 22).

ALTERNATIVE C (No Action Alternative)

Under the No Action Alternative, the proposed land exchange would not occur. The BLM would not benefit from consolidation of the public lands in high priority acquisition areas.

Federal grazing allotments and recreation would continue as they are now. Any royalties stemming from potential sand and gravel mining on the Selected Lands would be for the benefit of the United States.

ALTERNATIVES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

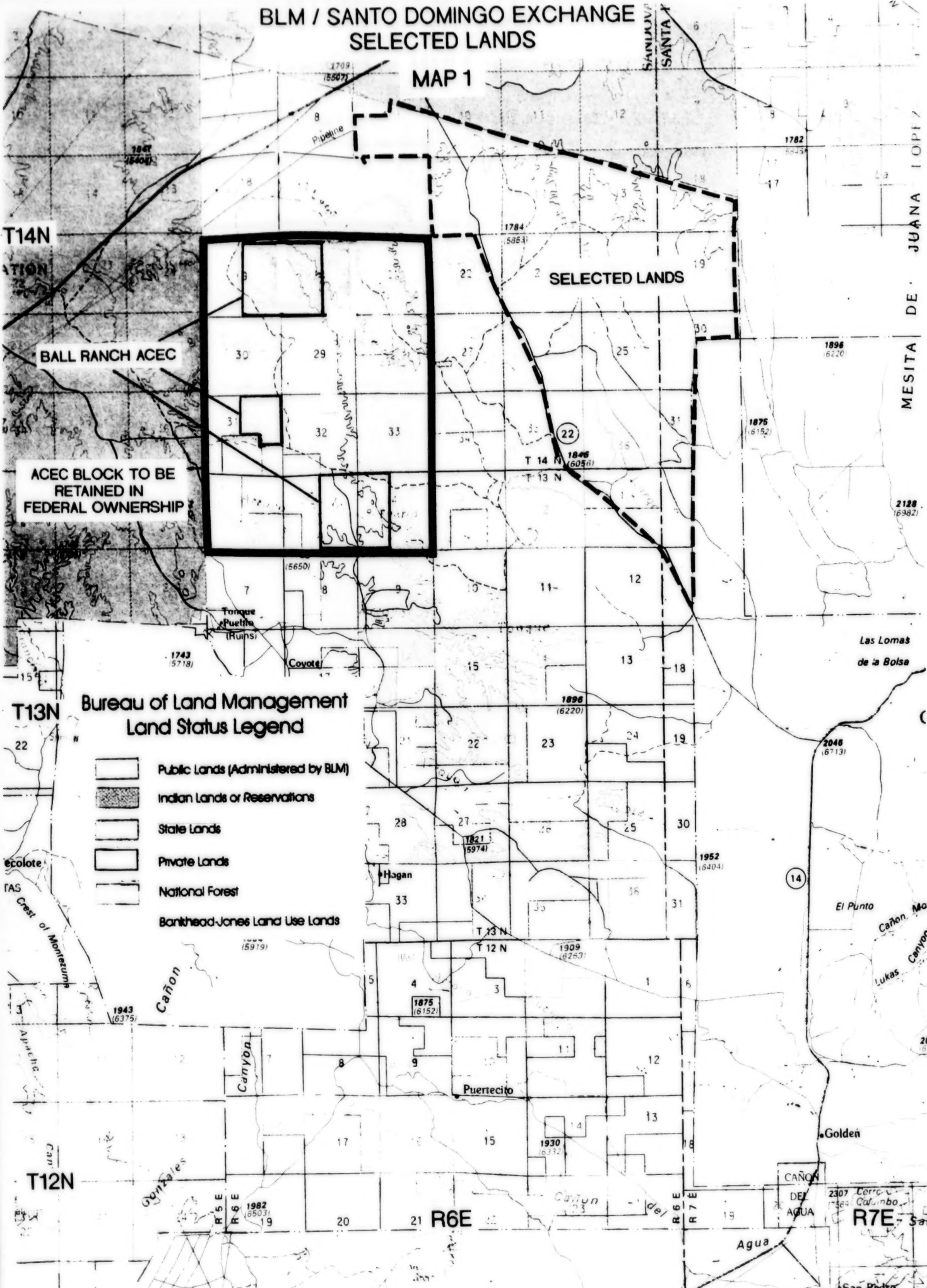
During 1998, a three-way land exchange was proposed involving the Santo Domingo and San Felipe Pueblos and the State of New Mexico. The exchange involved the Selected Lands and other surrounding public lands as well as State lands within BLM SMAs from an identified list including a parcel within the Petroglyphs National Monument. The exchange was proposed to satisfy the debt owed the State as a result of the Santa Ana land transfer and to consolidate lands in and adjacent to specially managed areas including the Petroglyphs National Monument.

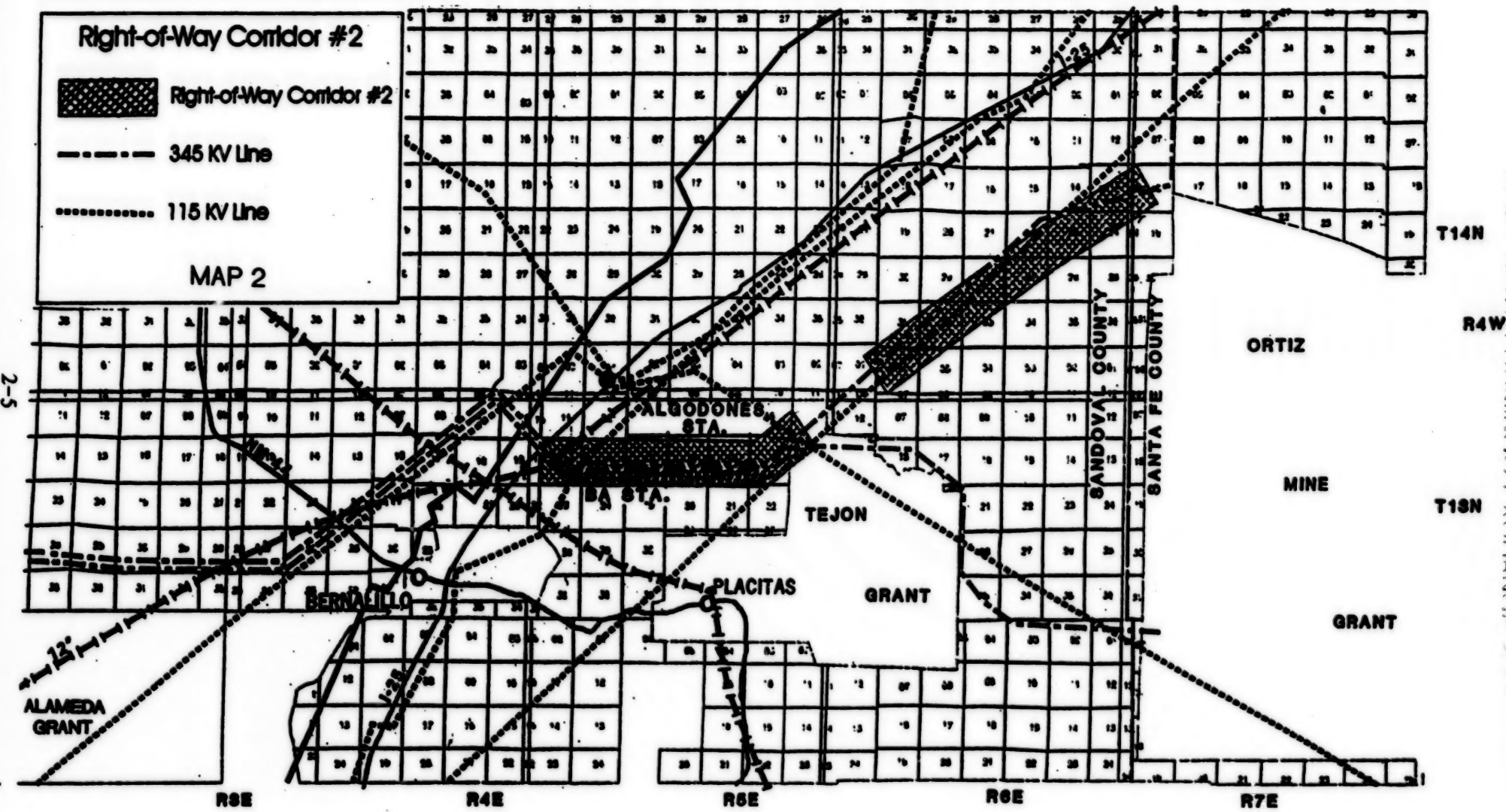
The public lands in the exchange considered involved approximately 18,295 acres of Federal surface and subsurface in the area of the Selected Lands. Under this three-way exchange, the Ball Ranch ACEC block would have been retained in Federal ownership. The value of the 18,295 acres the BLM proposed to transfer to the Pueblos was to be placed in an escrow account, which would have been used to purchase private or other lands of equal value for transfer to the State. The State would then have transferred scattered State lands of equal value (chosen by the BLM from an identified list) to the BLM.

This proposal was dropped from further consideration after the State Land Office identified other BLM disposal lands that would more prudently help them meet the State's trust mission. All parties agreed to drop this proposal from further consideration to propose three separate land exchanges between the respective entities.

BLM / SANTO DOMINGO EXCHANGE SELECTED LANDS

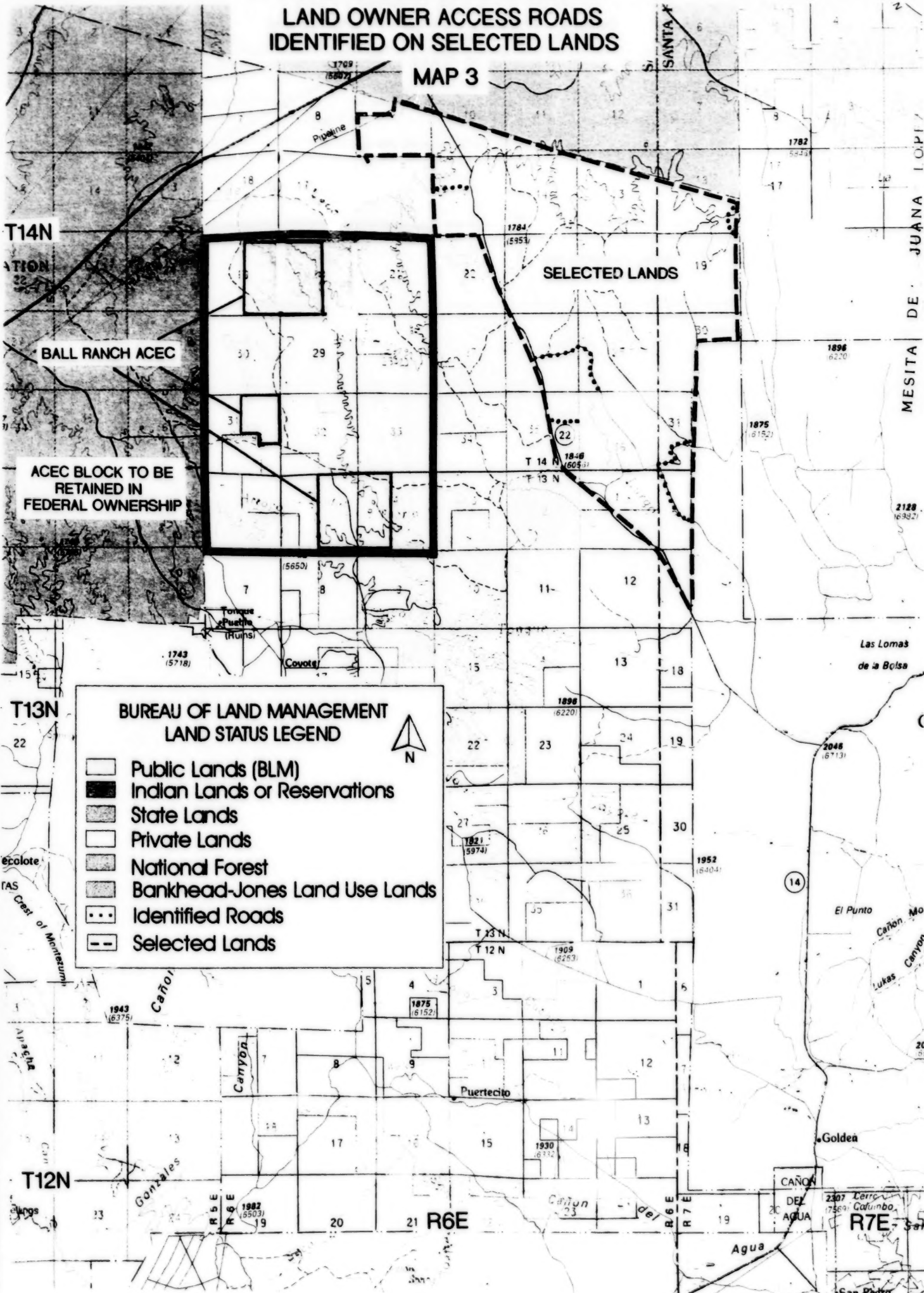
MAP 1





LAND OWNER ACCESS ROADS IDENTIFIED ON SELECTED LANDS

MAP 3

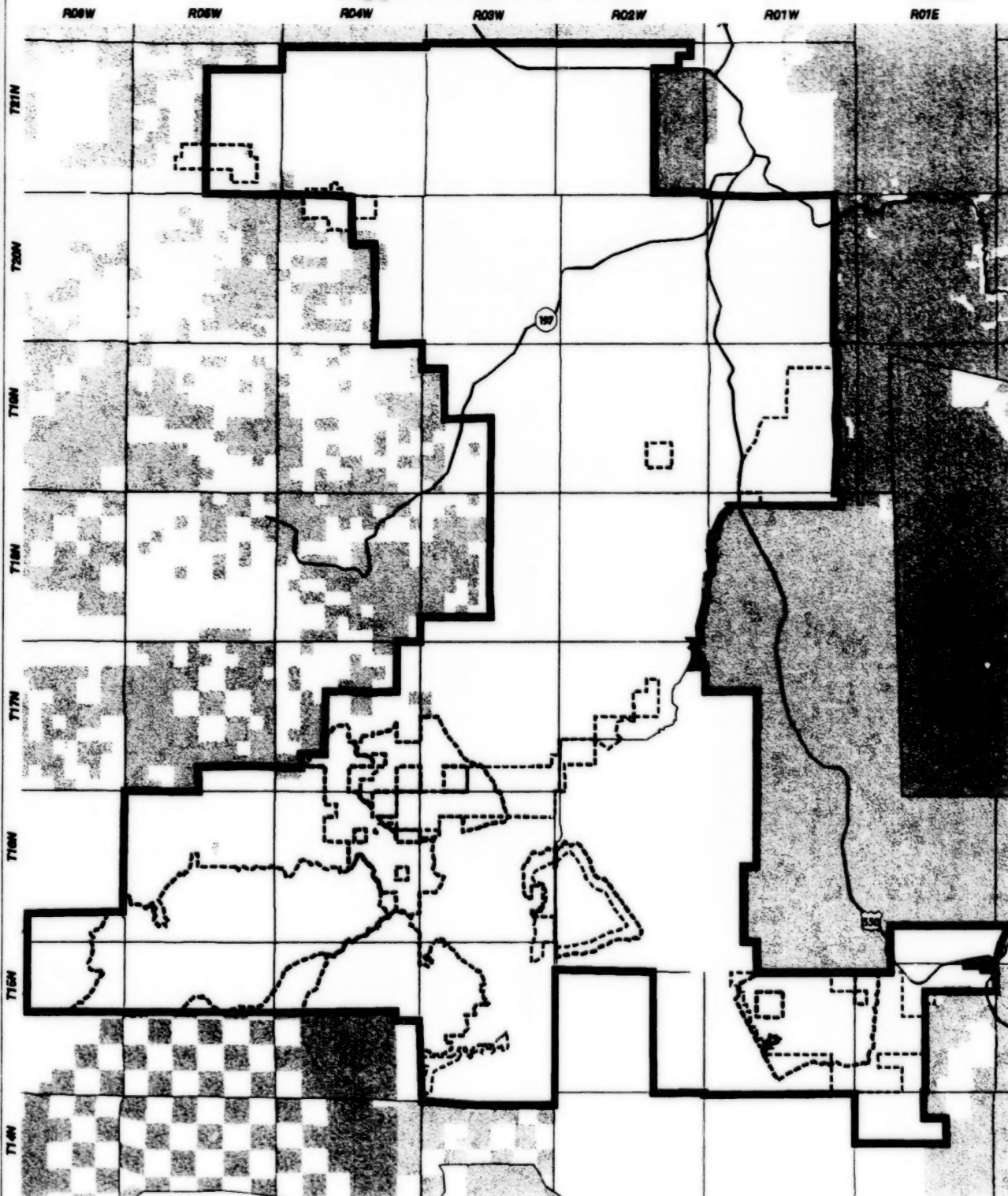


BUREAU OF LAND MANAGEMENT LAND STATUS LEGEND

- Public Lands (BLM)
- Indian Lands or Reservations
- State Lands
- Private Lands
- National Forest
- Bankhead-Jones Land Use Lands
- Identified Roads
- Selected Lands

Area of Lands Identified for Acquisition (Upper Rio Puerco, AFO)

Map 4a



- | | |
|---------------------------|--|
| Bureau of Land Management | U.S./State Highway |
| U. S. Forest Service | WSA Boundary |
| Tribal | ACEC Boundary |
| Private | Area of lands identified for acquisition |
| State | |

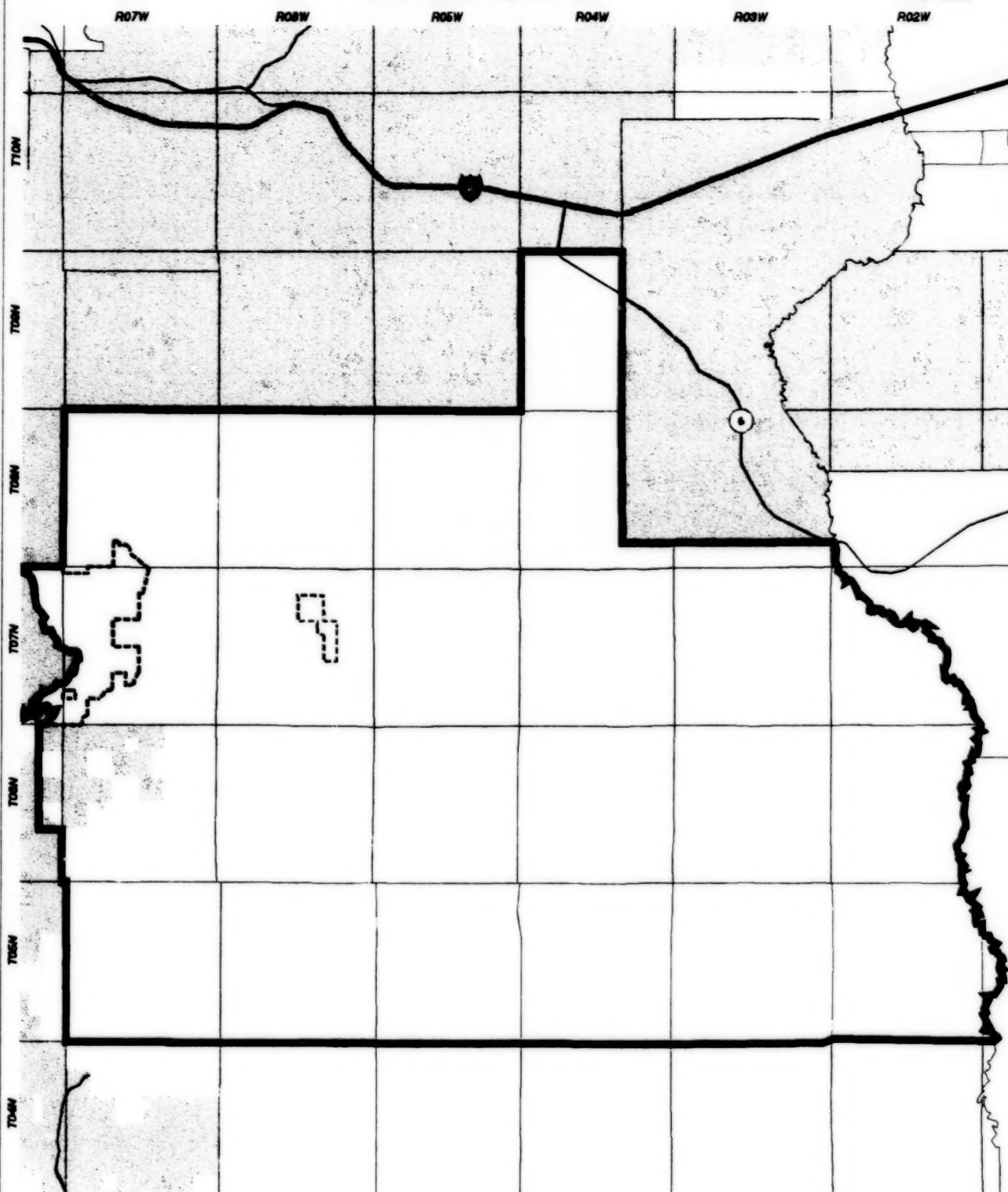
0 5 10
miles

Produced by the New Mexico State Office Geographic Sciences Team,
Bureau of Land Management, October 16, 2000

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Area of Lands Identified for Acquisition (Petaca Pinta, AFO)

Map 4b



- | | |
|---------------------------|--|
| Bureau of Land Management | Interstate Highway |
| Tribal | U.S./State Highway |
| Private | WSA Boundary |
| State | ACEC Boundary |
| | Area of lands identified for acquisition |

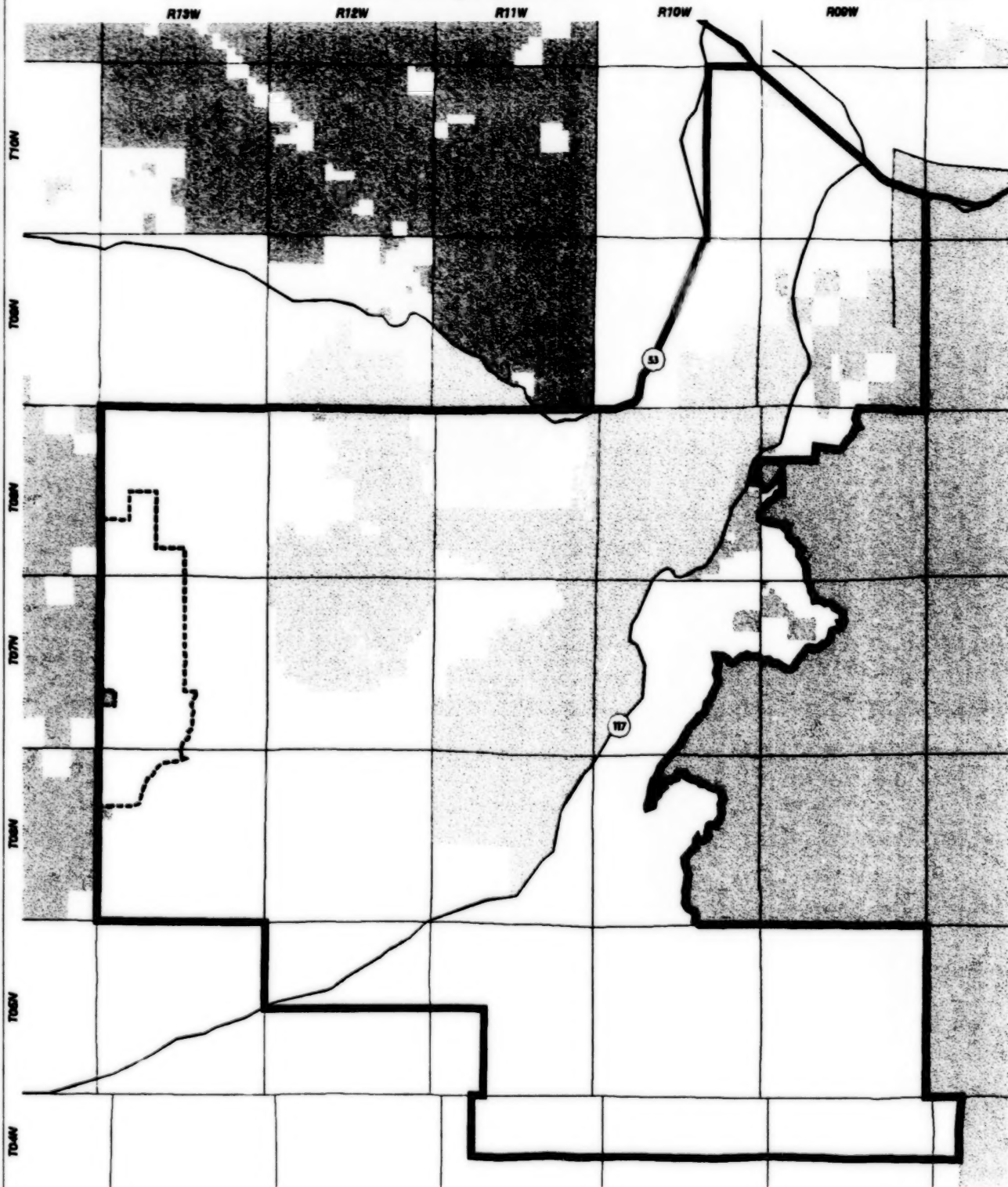
0 5 10
miles

Produced by the New Mexico State Office Geographic Sciences Team,
Bureau of Land Management, October 16, 2000

No warranty is made by the Bureau of Land Management as to the
accuracy, reliability, or completeness of these data for
individual use or aggregate use with other data, or for purposes
not intended by BLM. Spatial information may not meet National Map
Accuracy Standards. This information may be updated without notification.

Area of Lands Identified for Acquisition (El Malpais, AFO)

Map 4c



- Bureau of Land Management
- U. S. Forest Service
- Tribal
- National Park Service
- Private
- State
- U.S./State Highway
- WSA Boundary
- Area of lands identified for acquisition

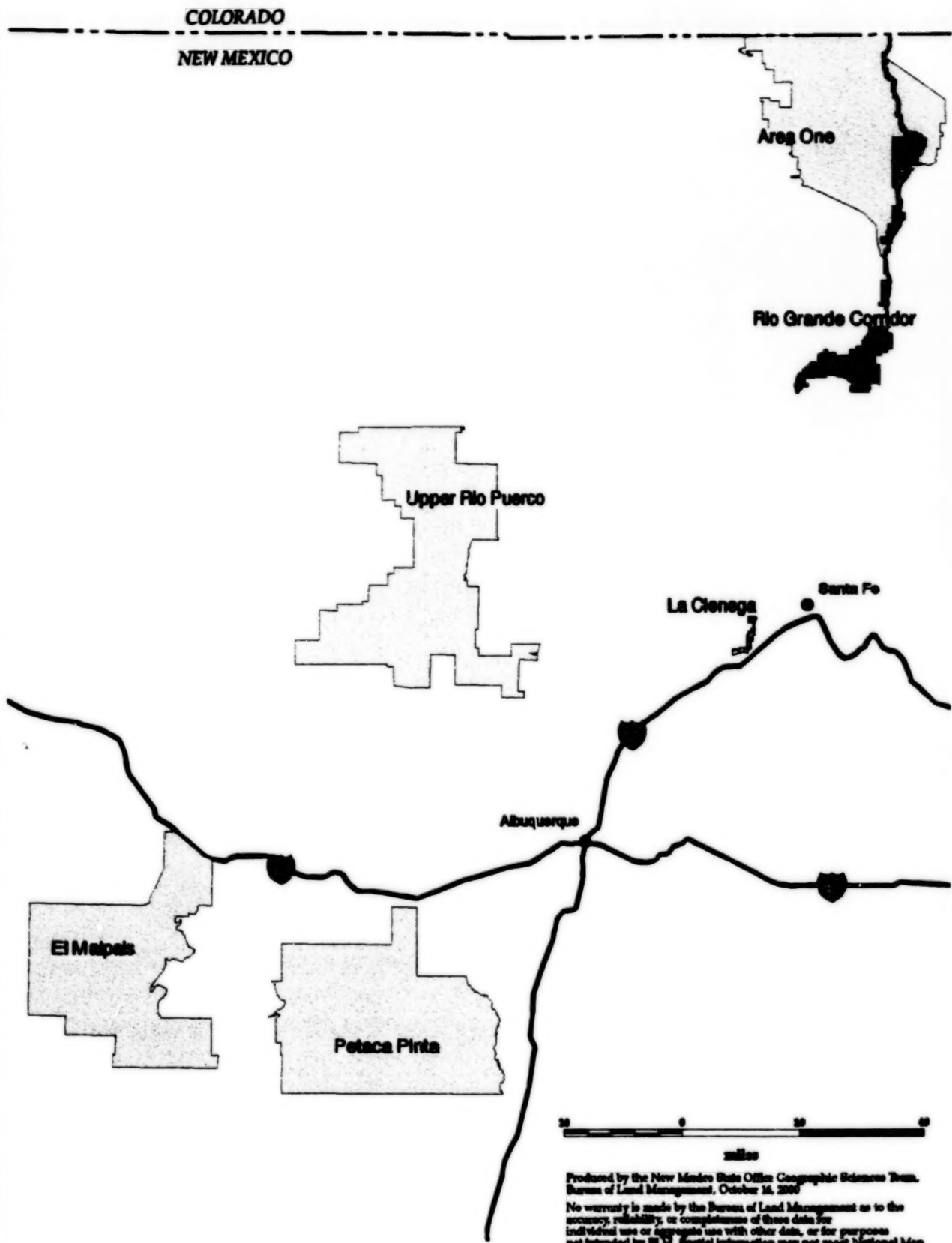
Produced by the New Mexico State Office Geographic Sciences Team,
Bureau of Land Management, October 16, 2000
No warranty is made by the Bureau of Land Management as to the
accuracy, reliability, or completeness of these data for
individual use or aggregate use with other data, or for purposes
not intended by BLM. Spatial information may not meet National Map
Accuracy Standards. This information may be updated without notification.

Map 4d



Map Locations

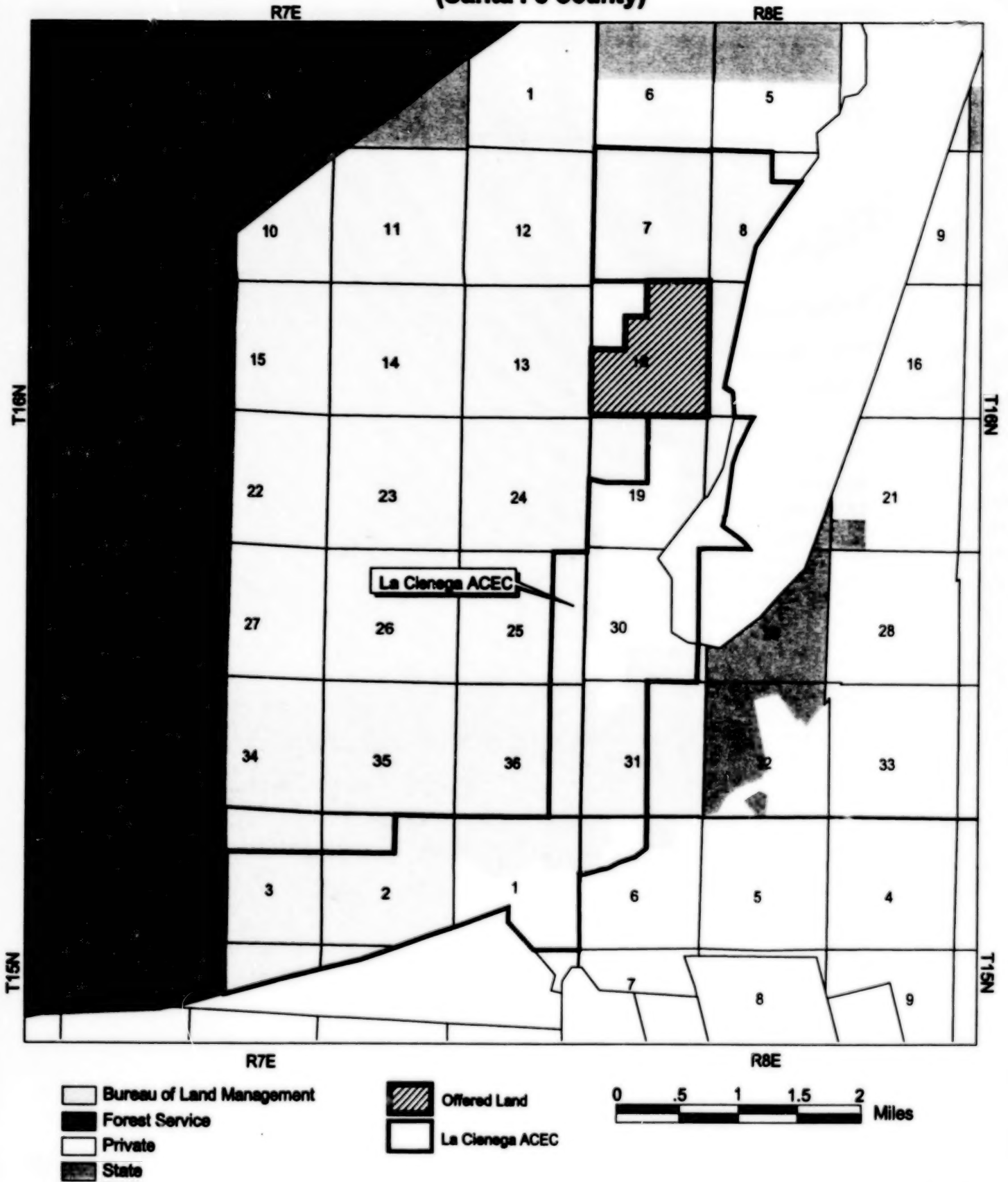
Map 4e



Produced by the New Mexico State Office Geographic Sciences Team,
Bureau of Land Management, October 16, 2000
No warranty is made by the Bureau of Land Management as to the
accuracy, reliability, or completeness of these data for
individual use or aggregate use with other data, or for purposes
not intended by BLM. Spatial information may not meet National Map
Accuracy Standards. This information may be updated without notification.

BLM / Santo Domingo Land Exchange Offered Land (Santa Fe County)

Map 4f



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Produced by the BLM New Mexico State Office
Geographic Sciences Team
Wednesday, January 23, 2002



Map 4g



CHAPTER 3

AFFECTED ENVIRONMENT

INTRODUCTION

This chapter describes the current resources and environmental conditions of the proposed land exchange area. It will also identify opportunities for resource use or management and constraints to resource use and management.

As previously mentioned in the Introduction in Chapter One and for purposes of this EIS, Federal lands selected for acquisition by the Pueblo are called "Selected Lands." Private lands are called "Offered Lands" where we refer to lands to be offered by the Pueblo to BLM in exchange for the Selected Lands.

SANTO DOMINGO PUEBLO SETTING

Located on the east bank of the Rio Grande, about 30 to 35 miles southwest of Santa Fe and about 30 miles northeast of Albuquerque, the Indians of Santo Domingo Pueblo (the Keresans) have occupied this area of the Rio Grande Valley since prehistoric times despite several floods that have forced relocation and reconstruction of the original pueblo. Strategically located along the roads that have led to La Bajada ("the slope," or the lower lands), this Pueblo and its people have played an important role in the history of the Camino Real from early Spanish times to the modern State and Federal highways.

REGIONAL SETTING

Selected Lands

Selected Lands comprised of approximately 7,376 acres are located in Sandoval and Santa Fe Counties. The lands are approximately 30 miles northeast of Albuquerque, New Mexico and are bounded by the Santo Domingo Reservation to the north. The Selected Lands are well consolidated.

No prime or unique farmlands are located on or near any of the Selected Lands; therefore, the proposed action would not affect this value. It was also assumed that no impacts to climate, topography and transportation, would result from this proposed land exchange.

Offered Lands

Offered Lands associated with this proposed exchange are individual sections or groups of sections lying within and adjacent to blocks of public land. Much of this public land is formally designated WSAs, ACECs, and SMAs (see Appendix B).

As stated in the Rio Puerco and Taos RMPs (USDI, BLM, 1986 and 1988), acquiring these offered sections would assist in consolidating public ownership in areas where there are outstanding wilderness,

recreational, wildlife, riparian, and cultural resources values. Therefore, the manageability of the land ownership pattern would be improved. These lands, if transferred to Federal ownership, would receive resources protection under the current RMPs, ACEC plans, Interim Management Policy for Lands under Wilderness Review (USDI, BLM 1995), and other Federal mandates. The lands acquired within a withdrawn area will be subject to the terms and condition of that withdrawal.

The proposed exchange would consolidate ownership of public lands in these areas by eliminating mixed BLM/private ownership. This would result in a more manageable land ownership pattern within and adjacent to WSAs, ACECs, SMAs and other high priority acquisition areas and it would also permit more resources protection by BLM's Albuquerque and Taos Field Offices.

The final Offered Lands include approximately 470 acres of lands in Santa Fe County and approximately 175 acres in Taos County, New Mexico. The Offered Land in Santa Fe County is located southwest of the Santa Fe city limits, situated on County Road 56C and northwest of the small Village of La Cienega and adjacent to La Cienega ACEC. With the exception of a 100+- private tract adjoining the property on the northwest, the property is surrounded by public land (BLM), and is immediately west and southwest of the Santa Fe Horse Park. This land is located outside the Santa Fe city limits.

The Offered Land in Taos County is located at the southern end of the Taos Valley in what is known as the Rancho Orchard area. The single irregular shaped parcel is bounded on the northwest by the Rio Pueblo de Taos, to the southeast by State Road 68, and to the northeast and southeast by other private lands. Other than recreational use along the River, the property is not being used for any purpose. The BLM Taos Field Office is currently initiating a phase III purchase acquisition of the private lands located to the west of the Offered Land. The property is within the Orilla Verde Recreation Area and is identified as a high priority for acquisition in the Taos RMP, as amended.

NATURAL ENVIRONMENT

Ecological Sites/Vegetation (Selected Lands)

The elevation on the Selected Lands within the proposed exchange area ranges from 5,853 feet to 6,066 feet. Low hills and mesas bisected by arroyos characterize the topography. These lands contain two broad vegetative communities: grasslands and juniper-savanna.

These broad categories can be further subdivided by delineating five ecological sites for the two broad

communities (see Table 3-1). (An ecological site is defined as land with specific physical characteristics that set it apart from another piece of land.) The five ecological sites within the affected environment are: 1) grassland--loamy, 2) juniper-savanna--limy, 3) juniper-savanna--gravelly, 4) juniper-savanna--hills, and 5) juniper-savanna--breaks.

Components that define these physical characteristics include land form and soil type or texture. The physical characteristics of these sites support specific vegetative communities. These physical characteristics and the vegetative communities they support are summarized in Table 3-2.

Ecological Sites/Vegetation (Offered Lands)

The Offered Land tracts within the affected environment are located in four major ecosystems: 1) riparian-wetlands, 2) grasslands, 3) sagebrush-grasslands, and 4) piñon-juniper woodlands.

The elevation of the final Offered Land in Santa Fe County ranges from 6,240 to 6,494 feet MSL. Terrain ranges from gently to steeply sloping with a prominent hill in the central portion of the tract. The eastern portion of the property slopes to the east toward the Santa Fe River. The overstory is a modest piñon/juniper tree cover. The understory of much of the property is arid in character with a reasonably good stand of gramma grasses, crested wheat grass and sacaton.

The elevation of the final Offered Land in Taos County ranges from 6,400 feet along the Rio Pueblo de Taos to about 7,000 feet at the highest point along Highway 68. The land gently downslopes from the southeast to the northwest toward the Rio Pueblo de Taos. Over most of the property vegetation consists of low growing sagebrush, gramma grasses, galleta grass, fourwing saltbush, and chamisa.

Threatened, Endangered and Other Special Status Species (Selected and Offered Lands)

Six federally listed threatened and endangered, one proposed, 33 species of concern (BLM sensitive), and 22 State of New Mexico threatened and endangered species are known or potentially could occur on public lands within Sandoval County (USDI, FWS 2000; NMDG&F 1998; Sivinski and Lightfoot, 1995). However, because of the land ownership patterns and the specific habitats used by these species, they may occur within the broad borders of Sandoval and Santa Fe Counties but not occur within the Selected Lands.

The federally listed, proposed, and BLM sensitive species that are known to occur within northern New Mexico include: American and Arctic peregrine falcon, bald eagle, mountain plover, Western burrowing owl, loggerhead shrike, and ferruginous hawk. Also, the American and Arctic subspecies of the peregrine falcon are known to pass through northern New Mexico during spring and fall migrations. The bald eagle has been known to migrate through the general area;

however, the area is outside of the bald eagle's normal range, which is along the Rio Grande corridor. The mountain plover is found throughout northern New Mexico where ever short-grass prairies are found. And the Western burrowing owl, loggerhead shrike, and ferruginous hawk occur throughout the area wherever their particular habitat sites (e.g., prairie dog towns and open piñon-juniper savannas) occur.

The following serves only as an example of the general vegetative/habitat communities and the potential listed, proposed and BLM sensitive species that could occupy these communities within the area. Many of the more mobile species (i.e., birds and bats) can use several different communities throughout the year.

Shrub-Grassland Community: The species of the shrub-grasslands include the bald eagle, western burrowing owl, ferruginous hawk, loggerhead shrike, and various species of bats. In addition, many species of bats use the shrub-grasslands as foraging areas.

Piñon-Juniper Woodland Community: None of the species appears to be limited or especially dependent upon the piñon-juniper woodland community. However, ferruginous hawks are known to use piñon and juniper trees for nesting purposes, and many species of bats use this community as foraging habitat.

When the offered parcels become BLM lands they will be treated as other public lands and all requirements of the Endangered Species Act will be followed.

The final Offered Lands in Santa Fe and Taos County both generally support a wide variety of neotropical migratory bird species. The Taos County parcel more specifically, contains habitats that are important for the American Peregrine falcon, the bald eagle and the southwestern willow flycatcher.

Water Resources (Selected Lands)

No perennial streams exist within the proposed exchange area. However, an ephemeral channel system does cut northwesterly across the proposed exchange area. Arising on the flanks of the Ortiz Mountains to the east, long and nearly parallel channels such as Arroyo Largo carry storm water and sediment to Galisteo Creek and then into the Rio Grande.

The most dependable source of water resources in the area is ground water. The recent surface erosional deposits are usually less than 100 feet thick and generally not water bearing. These deposits cover the major aquifer or water-bearing units in the area, the basin fill deposits of the Santa Fe Group, divided into three units--Upper, Middle and Lower. The Upper and Lower Units have low ground-water production potential. The Upper Santa Fe unit usually is not saturated and the Lower Santa Fe unit is characterized by fine- to medium-grained material such as clays, silty sands, and interbedded sands and silty clays with local conglomeratic or gravelly zones.

TABLE 3-1
ECOLOGICAL SITES FOUND ON SELECTED LANDS

Ecological Sites	Land form	Soil Textures	Vegetative Communities
Grasslands Loamy	Level to strongly sloping piedmont (5-15% slope)	Sandy to clay loam Contains clay, silt, sand & organic matter	<u>Grasses</u> blue grama bottlebrush squirreltail galleta western wheatgrass <u>Shrubs</u> broom snakeweed fourwing saltbush winterfat
Juniper-Savanna Limy	Level to strongly sloping piedmont (5-15% slope)	Sandy to clay loam Contains clay, silt, sand & organic matter Highly calcareous (contains lime)	<u>Grasses</u> black grama New Mexico feathergrass sideoats grama <u>Shrubs</u> Bigelow sage broom snakeweed fourwing saltbush winterfat
Juniper-Savanna Gravelly	Tops of slopes of higher elevation hills (5-15% slope)	Loam to sandy loam with gravels throughout soil profile Contains clay, silt & sand <u>Coarse components:</u> gravel, cobble & stone	<u>Grasses</u> black grama blue grama hairy grama New Mexico feathergrass sideoats grama <u>Shrubs</u> Apache plume skunkbush sumac soapweed yucca
Juniper-Savanna Hills	Rolling to steep hills (15-75% slope, average slope 20-30%)	Loam, clay & sandy loams with coarse components Contains clay, silt & sand <u>Coarse components:</u> gravel, cobble & stone	<u>Grasses</u> black grama little bluestem New Mexico feathergrass sideoats grama silver bluestem <u>Shrubs</u> algerita mountain mahogany oak skunkbush sumac
Juniper-Savanna Breaks	Steep slopes of mesas & canyons (average slope 40-50%)	Cobbly to very stony loam Contains clay, silt & sand <u>Coarse components:</u> cobbles & stone	<u>Grasses</u> blue grama hairy grama little bluestem sideoats grama wolftail grama <u>Shrubs</u> gray oak mountain mahogany skunkbush sumac

TABLE 3-2

ECOLOGICAL SITES FOUND ON PRIMARY GROUPS OF OFFERED LANDS

Riparian-Wetlands	Grasslands	Sagebrush-Grass	Pinon-Juniper Woodlands
Señorito Canyon (RPRA) Cerros Colorados segment of Rio Puerco Cerro Cuarte segment of Rio Puerco Elk Springs ACEC La Cienega ACEC <i>Orilla Verde Recreation Area</i>	Ball Ranch ACEC La Lena WSA Canon Tapia ACEC Cabezon WSA Ojito ACEC Ojo Caliente SMA Warm Springs SMA La Cienega ACEC Burnt Corn Pueblo El Malpais NCA	San Antonio WSA San Antonio SMA Dos Valles area Eagle Mesa area	Wild Rivers Recreation Area Pot Mountain (Cerro del Olla) area El Pueblo SMA Petaca Pinta WSA El Malpais NCA

The Middle Santa Fe Group unit has the greatest comparative potential for water production in the area. That potential is based on an estimated local saturated thickness of 1,000 to 2,000 feet and a saturated horizontal hydraulic conductivity of not more than four feet per day. Water production would also depend on the quality of well design and construction. The ground water in this group generally flows northwest to the Rio Grande.

The next geologic unit below the Santa Fe Group is the Espinazo Formation, composed of volcanic sediments that have a dense mudstone matrix and low to very low potential for ground-water production. The Espinazo serves primarily as a barrier to ground-water movement. This formation was uplifted and exposed along the eastern border of the exchange area by the Tano Fault. (For a more detailed explanation of the hydrogeologic situation see the report in Appendix E.)

The three wells on BLM lands and the one well on state lands apparently produce enough water to support current livestock operations. Three wells are shallow with depths ranging from 300 to 500 feet, the depth on one well is unknown, and the permit for the fifth (test) well specified its planned depth would be 1,000 feet. The latter would reach the Middle Santa Fe unit while the others are probably using a local water table or are situated on the Upper-Middle Santa Fe Group boundary.

BLM does not own any water rights within the proposed exchange area. However, the New Mexico Office of the State Engineer lists three claims of private water rights and one test well on BLM lands. The stated uses are domestic and livestock with a total appropriation claim of 62 acre feet per year. Under New Mexico water law, an appropriation water right is considered property and can be owned separately from the land. As property, a water right can be sold

or transferred with approval by the Office of the State Engineer. On BLM lands, the water rights and land are separated by ownership.

Water Resources (Offered Lands)

The highest priority areas for land ownership consolidation were delineated in the Rio Puerco and Taos Resource Area Management Plans (RMPs). Until the Offered Lands are identified no inventory of natural resources on these lands will be made. Water resources in the offered land areas are most likely to consist of ephemeral channels, stock tanks, and livestock wells. There may be opportunities to acquire reaches of perennial streams and riparian areas. The BLM would be interested in acquiring any water rights associated with these lands.

The final Offered Land in Santa Fe County contains a 520 foot deep cased well within the northeastern portion of the property. The well record indicates a pump rate of about 20 gallons per minute, although discharge was limited to the size of the pump to 25 gallons per minute. The static water level is at approximately 287 feet. The Geohydrology report prepared by Glorieta Geoscience, Inc., concluded that the well is of significant capacity to supply the proposed subdivision, with conservation measures. The water quality is also reported to exceed all appropriate drinking water standards. A 100 foot well is also located in the southeastern portion of the property. Both wells have state-recognized water rights.

Wildlife (Selected Lands)

An open, arid juniper-piñon woodland Kuchler ecosystem type with some livestock water troughs provides habitat capability for about 119 animal species in the Selected Lands area. Reliable water in the proposed area for most wildlife is either not present or not accessible due to the height of the cattle troughs.

Overall, about two amphibian, 44 bird, 36 mammal and 37 reptile species would be expected to be associated with the local ecosystems.

Of the 44 species of migratory birds associated with the local ecosystems, 37 are neotropical migratory birds (see Glossary, Appendix F). The selected lands would be expected to provide stopover habitat for between 50 and 100 additional migrant species during the spring and fall migrations.

Wildlife (Offered Lands)

The Offered Lands would most likely contain one or more of the following Kuchler ecosystem types: grama-galleta steppe grassland, Great Basin sagebrush shrub land, juniper-piñon woodland, or pine-Douglas fir forest.

Several hundred wildlife species associated with these ecosystems exist within BLM's Albuquerque Field Office area. The species present come from among a possible 11 species of amphibians, 205 species of birds, 96 species of mammals, and 46 species of reptiles.

Since nearly all bird species associated with the Albuquerque Field Office area are migratory birds, about 200 potential species exist on the Offered Lands plus another 50 to 100 stopover migrants during the spring and fall migrations.

Expected wildlife on the final Offered Land in Santa Fe County include rabbits, ground squirrels, prairie dogs, foxes and occasional deer and coyotes. Typical desert oriented bird life, primarily perching birds have been noted on the parcel.

The final Offered Land in Taos County serves as a vital link for migrating herds of elk and mule deer and possesses habitat characteristics which allow other mammals to transition in elevation and habitat as part of their life cycle use of the landscape. Most notable of these are the mountain lion, bob cat and black bear.

Geology/Paleontology (Selected Lands)

The Selected Lands lie approximately at the center of north-central New Mexico, along the eastern flank of the Rio Grande Rift System. The rift is composed of a series of north-trending *en echelon* grabens (down-dropped or offset blocks). This region is characterized by volcanic plateaus, dissected alluvial basins, and uplifted mountain ranges. Sedimentary, igneous, and metamorphic rocks, ranging in age from Precambrian to Quaternary, are present.

Also found within the Selected federal Lands are deposits of finely-preserved petrified wood and, deposits of mesozoic marine bivalve shells. The coarse-grained deposits outside of the federally retained area are unlikely to contain well-preserved vertebrate fossil material.

Geology/Paleontology (Offered Lands)

Physiographically, the Offered Lands are located in the Southern Rocky Mountain Province, the Intermontane Plateau, and the Basin and Range Plateau.

The Southern Rocky Mountain Province includes only a small part of north-central New Mexico, terminating at the south end of the Nacimiento Mountains and the Sangre de Cristo Range (north of Glorieta Mesa at the northeastern part of the study area). This Province includes parts of two major structures, the Tusas Uplift and the Rio Grande Trough (rift). Land forms common to this province include flat open mesas, arroyos, rolling foothills, mountainous areas, steep canyon rims and terraces, and gorges. Stratigraphics of the area include volcanic pyroclastics, Tertiary age flood basalts, and alluvial deposits resting directly on Precambrian rocks.

The Intermontane Plateau contains two sections of the Colorado Plateau Province: (1) The Navajo section, located in northwestern New Mexico, consists of mesas, cuevas, rock terraces, retreating escarpments, arroyos, canyons, and the structural San Juan Basin. The stratigraphy of the area is characterized by outcrops of sandstone with lesser amounts of shale subjected to erosion. (2) The Datil section to the south includes stream-dissected mountain ranges, depositional slopes and flats, alluvial fans, erosional surfaces, lacustrine and basinal structures, and volcanic centers. Sedimentary and igneous rocks ranging in age from Cretaceous to Quaternary are present.

The Mexican Highland division of the Basin and Range Plateau consists of high desert and intermountain areas. These areas contain fault-block mountains, basalt flows, mesas composed of sandstone and shales, canyons with narrow valley floors, river flood plains, and level to undulating piedmont slopes and plains. A wide range of lithologies is present in this division, including valley alluvium, incised Cretaceous and Tertiary rocks, and flood plain and stream-channel deposits derived from uplift areas.

For stratigraphic details on formation/member exposures on some of the Offered Lands, see the *New Mexico Statewide Wilderness Study* (USDI, BLM, 1988a). (For definitions of some of the above geologic terms, please see Appendix F.)

The final Offered Land in Santa Fe County contains volcanic features that have value for public education and is easily accessible to the public. The property has high value for interpretation, science education and research of the volcanic features as part of the New Mexico landscape.

The final Offered Lands in Taos County is located on the left flank of the Rio Grande Rift. The Rio Grande Rift is a late Cenozoic rift in the continental crust. The dominant geologic feature at the subject area is the Servillita Basalt. This is an area of multiple layers of basalt flows. This is overlain by

the Upper Member of the Servillita Basalt, which is composed of alluvial fan material from the nearby Picuris Mountains. Beneath the Servillita Basalt are the sediments of the Santa Fe Formation.

Minerals (Selected Lands)

Locatable mineral activity in the Selected Lands area has included uranium and gold; however, neither of these minerals is currently being produced. The uranium potential in the selected area is low-moderate to less favorable or unknown (McLemore, 1984; Gray, 1989). Currently in the Selected Lands area, no active mining claims for gold or other locatable metals and non-metals exist. Potential for base and precious metals and other locatables in the selected area is less favorable or unknown (Gray, 1989).

Saleable minerals include sand and gravel, limestone, gypsum, and other industrial minerals. In the Selected Lands area, the potential exists mainly for sand and gravel mining, while limestone, gypsum, and other saleable minerals are produced nearby. There is petrified wood present nearby, but most of this is confined to the Ball Ranch ACEC area. Most sand and gravel mined in the general area is found in young terrace and pediment deposits of the Rio Grande flood plain. However, sand and gravel do occur within the selected area in Quaternary age pedimental deposits. The proximity of the Rio Grande flood plain deposits to Albuquerque, land status and access, and other economic factors possibly have prevented sand and gravel mining in the selected land area to date.

Leasable mineral activity in the selected area has been for oil and gas and nearby coal mining. Coal in the area is found in the Una del Gato field (aka, Hagan field), a faulted, eastward-dipping homocline located between the Sandia and Ortiz mountains. Most coal mined in the area has been mined south of the Selected Lands. The final Federal oil and gas leases in the area expired in April and August 2000.

Minerals (Offered Lands)

Some of the private lands that BLM would acquire would probably be incorporated into specially designated areas. Consequently, no surface disturbance, including mining, would occur on these lands.

The final Offered Lands in Santa Fe County contain deposits of scoria, some of which are being mined on the adjacent private lands to the northwest. There are several small pits ranging from 10 to 100 feet in diameter scattered throughout the Offered Lands. These pits date from 1960's and 1970's.

Mineral resources of the Offered Land in Taos County were inventoried in 1981 by Tecolote Corporation under BLM contract YA-553-CYO-1088. All known deposits of saleable and locatable minerals, and potentially valuable leasable minerals, both energy and non-energy were identified.

In the Offered Land area (Taos County), leasable minerals are not identified but the area lacks the geologic environment necessary for the formation of solid leasable minerals. Locatable minerals are known to occur to the east of this area but not within the subject area.

Saleable minerals (mineral materials) generally occur within and along current and ancestral streams, rivers, and arroyos. The Taos Mineral Resource Inventory identifies this area as being within NE-6-2, "Taos Plain District" which has occurrences of road construction material. During the on-site inspection of July 26, 2001, it was noted that there is sand and gravel resources located throughout the subject area.

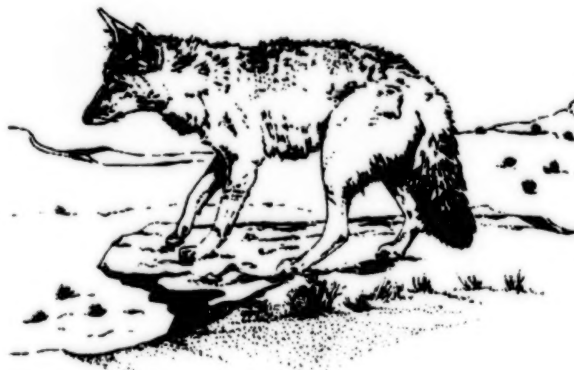
A review of the BLM mining index indicates the absence of any current mining claims in this area.

Land Uses (Selected Lands)

The federal government administers both surface and subsurface estate on all the Selected Lands within the EIS study area. Current and potential uses of the Selected Lands analyzed in the EIS are: livestock grazing, rights-of-way (ROW) development, oil and gas leasing, mineral material (sand & gravel) sales, wildlife habitat, outdoor recreation and cultural resource management.

Other potential uses include additions to state and local governments and non-profit organizations under the Recreation & Public Purpose Act (R&PP). Past activities include coal mining, oil and gas drilling, and uranium exploration. Since 1995, numerous requests by the public for sand and gravel sales have also been received. The land is managed by the BLM under the principles of multiple use and sustained yield.

Certain areas of the federal lands are occupied by various facilities (ROW's) authorized by the BLM. Listings of ROW's and other rights to be reserved are contained in Appendix I.



The need for new ROW development on the public lands arises occasionally, usually in relation to access roads to service nearby private parcels and utility facilities (power lines, pipelines), or for roads and highways to service outlying areas. The New Mexico Highway and Transportation Department notified the BLM of a corridor study being initiated through the proposed federal lands for a highway connection between Interstate 25 and State Road 14. *[The initial Corridor Study Report was completed in April 2001 and no right-of-way request was submitted.]* In addition, the Public Service Company of New Mexico has also notified BLM of a proposed right-of-way plan through the federal lands for a natural gas line from Bernalillo to Santa Fe. *[No right-of-way request has been submitted.]*

A portion of the Selected Lands contain a right-of-way corridor that was designated in the resolution of the Rio Puerco RMP Rights-of-Way Corridors Issue as a preferred location for future transmission line placements. (Rights-of-way corridors were designed to prevent haphazard rights-of-way placement and to reduce adverse environmental impacts.) The corridor contains two power lines authorized to PNM.

Private Lands Adjacent to the EIS Proposed Exchange Area. Private lands have been subdivided for residential development northwest of the Selected Lands and a large commercial development has recently changed management from an outlet mall to a festival market place. Private lands on the east and south (about 10 miles) are also being developed for residential use. The private lands five miles west of the Tejon Land Grant (southwest of the Selected Lands area) house a large community (Placitas) that is still actively being developed.

County and State Access within the EIS Proposed Exchange Area. Access to the Selected Lands is from Interstate 25 (Exit 259) east on County Road 252A (formerly State Road 22). Sandoval County has requested a right-of-way for County Road 252A, which was proposed for consideration under Federal Revised Statue 2477 Right-of-Way. There will be a right-of-way granted to Sandoval County or the New Mexico Highway and Transportation Department after agreement is reached between the County and the Highway Department. *(Official records show that the state had a valid right-of-way which has now been assigned to Sandoval County.)*

Many of the public lands contain historical access roads that are used by adjacent landowners to access their private lands. In order to identify these roads the BLM requested landowners to mark these roads on a map through a letter dated May 19, 1998 (see Map 3).

Land Uses (Offered Lands)

The Offered Lands are individual sections or group of sections lying within blocks identified as Management Class A lands in the Rio Puerco RMP (see Map 4a-e). Private lands within the Ball Ranch ACEC block as well as other high priority acquisition

areas administered by the Taos Field Office especially within or adjacent to Orilla Verde Recreation Area, Burnt Corn Pueblo and La Cieneguilla may also be purchased by the Pueblo for exchange. As stated in the Rio Puerco and Taos RMPs, acquisition of these areas could serve to consolidate public ownership in areas of outstanding recreation, wildlife, riparian, and cultural resources value, improving the management of the land ownership pattern. Lands within WSA's would be managed under Interim Management Policy for Lands Under Wilderness Review (USDI, BLM, 1995). The lands not within WSAs would be managed under the management prescriptions of the ACEC plans and the RMPs.

Consolidating land ownership would result in a more manageable land ownership pattern within the Management Class A lands and high priority acquisition areas.

The final Offered Land in Santa Fe County contains a right-of-way for County Road 56C, easements for 2 overhead electrical power lines, a fiber optic line and an access road for a pumice/scoria mine on the adjacent property on the northwest. Improvements include public electrical and telephone service, partial perimeter fencing, a 520 foot deep cased well, a 100 foot well in the southwestern portion of the property and a private drive to a proposed homesite within the north half of the property.

The final Offered Land in Taos County contain several trails and roads, however, at this time there are no known authorized rights-of-way or other uses.

Wilderness (Selected Lands)

The Selected Lands within this proposed exchange area contain no WSAs or designated wilderness areas.

Wilderness (Offered Lands)

A thorough discussion of the wilderness resources of the Offered Lands can be found in the *BLM New Mexico Statewide Wilderness Study: Final Environmental Impact Statement* (USDI, BLM, 1988a), which lists the Offered Lands within WSAs potentially identified for acquisition.

The final Offered Lands in Santa Fe and Taos County contain no WSA or designated wilderness areas.

Recreation (Selected Lands)

Recreational activities in the Selected Lands affected by this EIS include activities such as hiking, camping, picnicking, wildlife viewing, upland bird hunting, recreational shooting, horseback riding and photography which are dispersed throughout the proposed exchange area. Other recreational activities consist of motorized vehicle and mountain bike use on established roads. Motorized vehicle use within the Selected Lands is limited to existing roads and trails as

allocated through the 1986 Rio Puerco RMP (reprinted in 1992 and published in the Federal Register on April 16, 1987). The 7,376 acres of Selected Lands fall within the 22,731-acre Ball Ranch off-road vehicle designation area where this type of use is limited to existing roads and trails.

In recent years, vehicle access has only been possible for about 5,000 of the 7,376 acres of public land proposed for exchange in this EIS. Largely because of restricted access, recreational use is not considered to be high.

Recreation (Offered Lands)

Offered Lands would most likely provide resources for dispersed recreation activities that would be similar to those on public lands immediately adjacent to the Offered Lands. Currently recreational use on the Offered Lands would be at the discretion of the private land owner. The Offered Lands within WSAs, once transferred, would provide additional opportunities for primitive and unconfined types of recreation activities, similar to those currently provided on adjacent public lands.

The final Offered Land in Santa Fe County is adjacent to La Cienega ACEC which is considered to have great recreation potential because of its cultural resources and vistas. Although the area has not been developed yet, because of the resources present in the ACEC and adjacent lands there is the potential to provide opportunities for recreation activities such as interpretation and environmental education; hiking; bird watching; and viewing of the scenic, natural and riparian resources in the area. The Offered Land is currently receiving indiscriminate recreational use from activities such as off-road vehicle driving and target shooting.

The final Offered Land in Taos County contain resources suitable for dispersed recreation activities or those not dependent on facilities. Current recreational use of the Offered Land would be based upon permission from the landowner. The Offered Land provides a variety of physical settings ranging from uplands to steep canyon walls and lands along the Rio Pueblo that would allow recreationists to pursue a variety of activities.

Visual Resources (Selected and Offered Lands)

(Note: Ratings from the BLM scenic quality classes, visual sensitivity levels, and distance zones are combined to form Visual Resource Management (VRM) Classes. A VRM class identifies the suggested degree of human modification that should be allowed in a certain landscape.)

BLM's Rio Puerco RMP indicated that the approximately 7,376 acres of Selected Lands within the EIS study area are classified as VRM Class IV. Because Class IV areas are considered to be of lower value visual quality, management objectives allow contrasts to be the dominant landscape features in the

area. Such contrasts might include developments or structures that attract attention in the landscape, such as communication sites, mineral development, or disposal sites. However, every attempt would still be made to minimize modifications to the landscape.

The final Offered Land in Santa Fe County consists of a landscape modified by human occupancy in the area and use of the land. Present are such things as roads, above ground utility structures and alterations of the natural landforms. This land provides a link to other relatively undeveloped public land and from high-points within the Offered Land, views are available of the distant Sangre de Cristo Mountains to the northeast and the adjacent Santa Fe River valley.

The approximately 175 acres in Taos County of open and relatively undeveloped land lies between New Mexico State Highway 68 and the Rio Grande and the Rio Pueblo de Taos. The viewshed across this land from NM 68, a major tourist route, up the Rio Grande gorge is considered stunning by many as evident in paintings, posters and postcards. If acquired this land above the gorge rim would be managed under Visual Resource Management (VRM) Class I objectives, which are the most restrictive on modification of the character of the landscape, to protect the unobstructed view of the Rio Grande gorge from NM-68.

Air Quality (Selected and Offered Lands)

Reduction of air quality impacts from activities on public lands is accomplished by mitigation measures developed on a case-by-case basis through NEPA or other statutory or regulatory processes. Each impact is evaluated to see if it is allowable and acceptable. Activities such as road construction and mining have dust abatement programs as part of their permits or contracts.

The BLM is required to comply with the New Mexico State Implementation Plan on air quality as well as meet responsibilities under the Clean Air Act (as amended) and FLPMA (see Appendix C). BLM 7300 Manual will provide administrative guidance on air resources upon approval.

The affected [proposed] exchange area is designated a Class II airshed under the 1977 Clean Air Act. This airshed meets all New Mexico and Federal air quality standards.

The open landscape in the area makes alteration of its airshed very apparent. Wildfires are the most common source of air-quality deterioration, with some pollution caused by nearby Albuquerque.

Noise (Selected and Offered Lands)

Noise in the proposed land exchange area is generally low and not disturbing. Normal sources of noise include automobiles, wind, animal life, state and

county road department equipment, and occasional airplane overflights.

Except those areas that are close to heavily traveled roadways such as Interstate Highway 25 and other county and State roads in the region, day-night weighted sound levels within the affected exchange area probably range from 20 to 25 decibels (dB) on the A-scale dB(A) at midnight to 45 to 50 dB(A) during typical afternoons with moderate wind. (A value of 55 dB(A) is comparable to the noise heard approximately 50 feet from a road carrying light automobile traffic).

The final Offered Land in Santa Fe County is located a short distance west of the Santa Fe Municipal Airport. The Offered Land is not within noise zones and the noise disturbance to the tract is limited.

Noise on the Offered Land in Taos County is generally low and not disturbing. Normal sources of noise are listed above.

Hazardous Materials (Selected Lands)

An Environmental Site Assessment (ESA) was conducted on lands affected by this EIS. They have been examined using the American Society for Testing and Materials (ASTM) protocols Standard Practice for Environmental Site Assessments: Transaction Screen Process (ASTM, 1993), and in accordance with Section 120(h) of the Superfund Amendments and Reauthorization Act (SARA). No evidence exists to indicate that any hazardous material (the term includes hazardous substances, wastes, or other materials) was stored for one year or more, disposed of, or released on the affected land exchange property.

Hazardous Materials (Offered Lands)

Once an equal value for Offered Lands are identified from Maps 4(a-e), a hazardous materials inventory would be conducted. Information from this report could provide the basis for a BLM decision to delete certain parcels from the proposed land exchange.

The final Offered Land in Santa Fe County contain a small construction debris landfill, a small area of stained soils, several recreational shooting areas and trash and debris are on the property. The purchase agreement between Santo Domingo and the current landowner calls for evaluation and remediation of the contaminated sites.

The final Offered Lands in Taos County contain no hazardous materials, therefore, there would be no impacts regarding hazardous materials management.

Cultural Resources (Selected Lands)

A BLM Class I review of existing cultural resources information (Roney, 1996) shows that the [proposed] Santo Domingo exchange lands have been inventoried for cultural resources, although not to

current BLM Class III standards. Results suggest that these Federal lands and their immediate vicinities were used minimally during the PaleoIndian and Archaic Periods. More intensive use occurred during the early part of the Pueblo IV Period (AD 1315 to 1450), when a number of small field houses were built. Of the 90 houses in this general area that have been formally recorded by archeologists, the largest is four to six rooms in size. Most of the houses are only one or two rooms in size. In historic times, Native American use has been concentrated in the area of present-day Pueblos, although ethnographic evidence shows that tribal members still attach great historical, cultural and traditional significance to the proposed land exchange area.

Approximately one mile of the Camino Real passes through the extreme northwestern corner of the Selected Lands (Marshall, n.d.). Historic European use in this area has been focused in mining communities on adjacent lands which are now patented. Mining began in the vicinity of Golden, New Mexico, in the early 1600s, and the San Pedro and Ortiz Mountains have been the object of intense, if intermittent, economic interest. On the Selected Lands themselves, ranching has been the predominant economic activity.

Cultural Resources (Offered Lands)

Lands identified for potential transfer to BLM include significant cultural resources. Examples are Burnt Corn Pueblo, a large 13th century ruin in the Galisteo Basin, lands near Santa Fe, NM, which contain significant prehistoric rock art, and a parcel near Cuba, NM, which includes the heart of a 12th and 13th century Anasazi community.

The final Offered Land in Santa Fe County is adjacent to La Cienega ACEC, which was designated because of the important cultural, riparian, and visual resources found within the area. The area contains nationally significant cultural resources including thousands of petroglyphs related to prehistoric Pueblo villages, as well as associated agricultural sites. The Offered Land has been inventoried for cultural resources (Deyloff, Viklund and Scheick, 1994), and thirteen sites have been recorded. These sites date from the Late Archaic, Pueblo and Historic Periods. The majority of the sites date to the Classic Period (AD 1325-1600) and include field houses, agricultural fields and artifact scatters. These sites are likely associated with the nearby La Cieneguilla Pueblo.

The final Offered Land in Taos County has not been inventoried for cultural resources and therefore no sites have been recorded. Seven archaeological sites have been recorded within 2 miles of the parcel. The sites all contain petroglyphs and artifacts and date to Archaic and Pueblo Periods (5500 BC-AD 1600). Based on archaeological information from surrounding areas it is likely that this parcel will contain cultural resources.

American Indian Uses (Selected Lands)

In 1997, BLM proposed to exchange lands now included in the Santo Domingo/BLM Exchange to the State of New Mexico. In response to this proposal, both Santo Domingo Pueblo and San Felipe Pueblo expressed concerns related to traditional, historical, and cultural access and uses of these lands. The two pueblos have coordinated their concerns carefully and one important objective of the exchange proposed here is to give Santo Domingo Pueblo direct control over those lands and traditional uses.

American Indian Uses (Offered Lands)

No specific information is available about American Indian Uses of the lands which BLM might receive under this proposal.

Rangeland Management (Selected and Offered Lands)

The Ortiz Mountain Allotment is currently licensed for 2,272 animal unit months (AUMs). There are 15,413 acres of public land in the allotment, and it is 66 percent Federal land. Forty-nine percent of the allotment is in the Santo Domingo Exchange, 22 percent is in the San Felipe Exchange, and 29 percent is being retained in Federal ownership. The allotment is in the "I" (Improve) management category and has been recommended to remain in the I category.

The allotment is used as a cow-calf operation, with grazing occurring year long. Most years, there is some non-use to a varying extent, depending on climate and the livestock market. The current permit was effective 3/1/1993 and was renewed on 3/1/2002. The permitted use is as follows in Table 3-3:

Socio-Economic Conditions (Selected and Offered Lands)

For purposes of social and economic analysis, the Selected Lands are primarily in Sandoval County. The balance of the Selected Lands (approximately 18.5 percent) is in Santa Fe County. Because of their proximity to Albuquerque and Santa Fe, two of the State's major population centers, some spillover effects would occur, and Bernalillo County would also be affected. Population, employment income, and surface acreage ownership are presented for these counties. Because the potential Offered Lands are scattered, small tracts, the change in their ownership is less likely to have measurable social or economic effects. Change of ownership would contribute to manageability and to resource protection for special value resources.

Santo Domingo Tribal Government Offices are located within Sandoval County. The Pueblo, the home of a reservation population of 4,324 tribal members, has 64,401 trust acres in Sandoval and Santa Fe Counties.

Sandoval County's population has grown at a very rapid rate since 1970 (see Table 3-4). The census reported a 1970 population of 17,492; by 1980, the population had increased by 97 percent to 34,400. The rate of increase declined between 1980 and 1990, but the population grew to 63,319. The 2000 census shows Sandoval County with a population of 89,908. The 1970-to-2000 percentage increase was 413.99, compared to a 78.85 percent increase during the same period for the State of New Mexico. Santa Fe County had an increase of 136.05 percent to 129,292. Bernalillo County had an increase of 76.29 percent to 556,678 and Taos County had an increase of 71.15 percent to 29,979.

TABLE 3-3
PERMITTED LIVESTOCK USE
(Ortiz Mountain Allotment)

Allotment Name	Period of Use		Livestock Number & Kind	% Federal	AUMs	Suspended	Active
	Beginning	End					
Ortiz Mountains	3/1	2/28	50 C	66	396	0	396
	5/1	10/31	470 C	66	1876	0	1876
Total					2272	0	2272

TABLE 3-4
EXCHANGE AREA POPULATION
(By County and Year)

County	Year			
	1970	1980	1990	2000
Bernalillo	315,774	420,261	480,577	556,678
Sandoval	17,492	34,400	63,319	89,908
Santa Fe	54,774	75,519	98,928	129,292
Taos	17,516	19,456	23,118	29,979
Total (New Mexico)	1,017,055	1,303,302	1,515,069	1,819,046

The four counties associated with the exchange area include more than 44 percent of the State's population. The State population by race includes 69.9 percent White, 2.3 percent Black, 10.5 percent American Indian, and 1.6 percent Asian or Pacific Islander.

Sandoval County, the primary area affected by the exchange, has a race distribution of 68.1 percent White, 2.2 percent Black, 17.2 percent American Indian, and 1.7 percent Asian or Pacific Islander.

TABLE 3-5
EXCHANGE AREA POPULATION
(By Race; 2000)

County	RACE					Total
	White	Black	American Indian	Asian & Pacific Islander	Other	
Bernalillo	414,052	18,905	28,857	15,249	79,615	556,678
Sandoval	61,241	2,011	15,467	1,538	9,651	89,908
Santa Fe	99,726	1,211	5,333	1,834	21,188	129,292
Taos	20,177	185	2,291	250	7,076	29,979
New Mexico	1,272,116	45,124	191,475	29,688	283,355	1,819,046

The Tribal Profile (received 2/2/00 from the Southern Pueblo's Agency for the Santo Domingo Pueblo) showed a reservation population of 4,324, which

represents approximately 28 percent of Sandoval County's American Indian population and approximately 4.8 percent of the county's total population.

TABLE 3-6
COUNTY POPULATION BY RACE,
AS A PERCENT OF COUNTY TOTAL; 2000

	County				
	Bernalillo	Sandoval	Santa Fe	Taos	New Mexico
White	74.4	68.1	77.1	67.3	69.9
Black	3.4	2.2	.9	.6	2.3
American Indian	5.2	17.2	4.1	7.6	10.5
Asian Islander	2.7	1.7	1.4	.8	1.6
Other	14.3	10.7	16.4	23.6	15.6
Total	100.0	100.0	100.0	100.0	100.0

Employment has been high, and unemployment rates have been low for counties in the proposed exchange area except for Taos County. The following information from the Bureau of Business and Economic Research (University of New Mexico, 2000) shows civilian labor force figures for Bernalillo County at 293,068, Sandoval County, 44,689, Santa Fe County at 65,035 and Taos County at 12,638. The unemployment rates were 3.2%, 3.3%, 2.7% and 10.5%, respectively; the employment equals 50.8 percent of New Mexico's (792,435) labor force. Overall, New Mexico has an unemployment rate of 4.9 percent.

The major employment sectors in the proposed exchange area in 2000 were services (34.2%), government (18.6%), and wholesale and retail trade (24.4%). Sandoval County had a higher level of employment in the service sector (45.6%) and less employment in the wholesale and retail trade sector.

Per capita income varied between Sandoval and the other counties. Sandoval County's \$20,747 is 95.0 percent of the state's average of \$21,836. Bernalillo County is 125.0 percent of the State average, Santa Fe is 134.4 percent and Taos County is 84.4 percent.

The exchange area has had a long history of habitation by Native Americans, with a shorter period for Hispanics and an even shorter period for non-Hispanic

Whites. Each group holds social and cultural values distinctly its own, but each group has been required to make accommodations for others, resulting in a colorful and diverse social setting. The area's population has had a consistent and substantial growth over the last few decades, with some shifts between the rural and urban areas.

The Albuquerque/Rio Rancho area has had rapid and consistent growth and is a service center to much of New Mexico. The resources of the exchange area, especially the Selected Lands, in close proximity to the large population center, have been used for recreation and open space.

Attitudes expressed by groups and individuals involved in the exchange process are diverse and relate for the most part to either their social and/or cultural values. Those who have used the land for their own recreational purposes recognize that they will no longer have the access to the lands that they have had under public ownership, and, while there would be other public lands received, these lands will not be as convenient to use.

Under the proposed exchange, the Pueblo people would have jurisdiction over lands that will allow them to control the use of areas of high traditional cultural value (see Table 3-7 for data on surface land ownership). In these situations, it is not likely that everyone will be satisfied with their decisions.

TABLE 3-6
RACE AND ETHNICITY SUMMARY
(By County: in Percent)

	County				
	Bernalillo	Sandoval	Santa Fe	Taos	New Mexico
White	74.4	68.1	77.1	67.3	69.9
Black	3.4	2.2	.9	.6	2.3
American Indian	5.2	17.2	4.1	7.6	10.5
Asian Islander	2.7	1.7	1.4	.8	1.6
Other	14.3	10.7	16.4	23.6	15.6
Total	100.0	100.0	100.0	100.0	100.0

Employment has been high, and unemployment rates have been low for counties in the proposed exchange area except for Taos County. The following information from the Bureau of Business and Economic Research (University of New Mexico, 2000) shows civilian labor force figures for Bernalillo County at 293,068, Sandoval County, 44,689, Santa Fe County at 65,035 and Taos County at 12,638. The unemployment rates were 3.2%, 3.3%, 2.7% and 10.5%, respectively; the employment equals 50.8 percent of New Mexico's (792,435) labor force. Overall, New Mexico has an unemployment rate of 4.9 percent.

The major employment sectors in the proposed exchange area in 2000 were services (34.2%), government (18.6%), and wholesale and retail trade (24.4%). Sandoval County had a higher level of employment in the service sector (45.6%) and less employment in the wholesale and retail trade sector.

Per capita income varied between Sandoval and the other counties. Sandoval County's \$20,747 is 95.0 percent of the state's average of \$21,836. Bernalillo County is 125.0 percent of the State average, Santa Fe is 134.4 percent and Taos County is 84.4 percent.

The exchange area has had a long history of habitation by Native Americans, with a shorter period for Hispanics and an even shorter period for non-Hispanic

Whites. Each group holds social and cultural values distinctly its own, but each group has been required to make accommodations for others, resulting in a colorful and diverse social setting. The area's population has had a consistent and substantial growth over the last few decades, with some shifts between the rural and urban areas.

The Albuquerque/Rio Rancho area has had rapid and consistent growth and is a service center to much of New Mexico. The resources of the exchange area, especially the Selected Lands, in close proximity to the large population center, have been used for recreation and open space.

Attitudes expressed by groups and individuals involved in the exchange process are diverse and relate for the most part to either their social and/or cultural values. Those who have used the land for their own recreational purposes recognize that they will no longer have the access to the lands that they have had under public ownership, and, while there would be other public lands received, these lands will not be as convenient to use.

Under the proposed exchange, the Pueblo people would have jurisdiction over lands that will allow them to control the use of areas of high traditional cultural value (see Table 3-7 for data on surface land ownership). In these situations, it is not likely that everyone will be satisfied with their decisions.

TABLE 3-7
SURFACE LAND OWNERSHIP BY COUNTY
(Acres)

County	All Federal	BLM	Tribal	Private	State	Total
Bernalillo	119,243	10,922	226,140	370,216	28,732	744,331
Sandoval	958,023	534,351	735,297	589,357	78,146	2,360,823
Santa Fe	327,698	74,233	84,925	720,230	81,681	1,214,534
Taos	748,759	229,899	115,405	466,372	69,285	1,399,821
Subtotal	2,153,723	849,405	1,161,767	2,146,175	257,844	5,719,509
Percent of Total	37.66	14.85	20.31	37.52	4.51	100.00

TABLE 3-8

PERSONAL INCOME

(By Major Source and Earnings and by Industry, 1999; in thousands of dollars)

Item	County				
	Bernalillo	Sandoval	Santa Fe	Taos	New Mexico
Income by Place of Residence					
Personal income	14,284,126	1,872,519	3,645,627	499,738	37,990,750
Nonfarm personal income	14,272,923	1,871,108	3,641,188	498,498	37,302,017
Farm income	11,203	1,411	4,439	1,240	688,733
Per capita personal income (\$)	27,287	20,747	29,346	18,430	21,836
Derivation of Total Personal Income					
Earnings by place of work	11,494,906	891,141	2,150,306	299,989	26,159,101
less: personal contribution for social insurance	723,141	63,404	126,201	19,690	1,531,845
plus: Adjustment for residence	-1,099,871	504,515	285,393	8,279	104,913
equals: net earning by place of residence	9,671,894	1,332,253	2,309,498	288,578	24,732,169
plus: Dividends, interest, and rent	2,871,988	295,988	992,058	108,727	7,366,147
plus: Transfer payments	170,244	244,278	344,071	102,433	5,892,434
Earnings By Place of Work					
Components of Earnings:					
Wage and salary disbursements	9,440,397	737,186	1,598,328	202,724	20,385,807
Other labor income	1,207,773	86,098	192,935	25,815	2,786,793
Proprietor's income	846,736	67,857	358,993	71,450	2,986,501
Farm proprietors	7,260	69	1863	716	521,296
Nonfarm proprietor's	879,476	67,788	357,130	70,734	2,465,205
Earnings by Industry:					
Farm earnings	11,203	1,411	4,439	1,240	688,733
Nonfarm earnings	11,483,703	889,730	2,145,867	298,749	25,470,368
Private earnings	8,910,700	769,510	1,591,012	239,193	18,363,696
Ag.,ser.,forestry, fishing and other	56,505	2,371	16,084	1,752	175,957
Mining	15,315	2,776	16,642	(D)	768,512
Construction	738,740	55,953	161,921	(D)	1,640,394
Manufacturing	817,665	(D)	63,717	5,223	1,733,857
Transportation & Public utilities	635,398	62,049	47,302	9,976	1,549,426
Wholesale trade	680,071	(D)	62,569	6,398	1,041,386
Retail trade	1,210,840	80,423	298,573	52,520	2,810,878
Finance, insurance & real estate	793,812	33,100	206,572	17,204	1,406,237
Services	3,962,354	122,665	717,632	101,062	7,237,049
Government & government enterprises	2,573,003	120,220	554,855	59,556	7,106,672

(D) Not shown to avoid disclosure of confidential information, but the estimate for these items are included in the totals.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

The environmental consequences of implementing each alternative are considered for the "selected" and the "offered" lands. Only elements believed to be impacted by the actions required to implement the alternatives are given detailed consideration. Preliminary analysis indicates that climate, transportation, topography and prime and unique farmland do not require detailed analysis.

GENERAL ASSUMPTIONS AND GUIDELINES

1. Changes or impacts described and analyzed are short term (within a five-year period) unless otherwise stated; long-term impacts would occur 5-years and over.

2. The management actions were analyzed under the assumption that all actions would be fully implemented after the [proposed] land exchange occurred. The analysis also assumes that the conservation easement on the Selected Lands will be managed by the BLM and the lands would eventually become Trust lands managed by the BIA for the benefit of the Santo Domingo Pueblo. (see Glossary, Appendix F). It was also assumed that the Offered Lands to be acquired by the BLM under this proposal would provide BLM improved manageability and accessibility to these lands.

3. In addition, it was assumed that adequate funding and manpower would be available to implement the management actions discussed in the Proposed Action Alternative and Alternative B.

LAWS AND EXPLANATION OF PROPOSED LAND EXCHANGE PROCESS

As described in detail in Chapter Two under the Proposed Action Alternative, the conveyed BLM lands would become Fee lands (see Appendix F) and eventually Indian Trust Lands to be managed by the BIA. While the lands are currently managed by the BLM as part of their mission (see Appendix A) and under the principles of multiple use and sustained yield for the benefit of the public, the Santo Domingo Pueblo and the BIA would manage the lands for the benefit of the Pueblo.

The Selected Lands area is currently managed by the BLM under a number of Federal laws that would continue to be in effect if the proposed exchange is implemented. Many of these laws are concerned with environmental protection. Among these are the National Environmental Policy Act (NEPA) of 1976, Theft of Government Property statutes, the Endangered Species Act of 1973, the Archeological Resources Protection Act (ARPA) of 1979, the American Indian Religious Freedom Act of 1978, the

Antiquities Act of 1906, and the National Historic Preservation Act (NHPA) of 1966. Stringent Federal mandates, including the Federal Land Policy and Management Act (FLPMA) of 1976 would also apply to the Offered Lands if they were acquired through the proposed exchange. (See Appendix C for a detailed description of these laws.)

The proposed exchange would consolidate ownership of public lands in high priority acquisition areas. In addition, by reducing mixed BLM ownership, the exchange would result in an improved land ownership pattern within the Albuquerque Field Office and the Taos Field Office.

Acquiring the Offered Lands within high priority acquisition areas is a primary goal of the Rio Puerco and Taos RMPs (DOI, 1988 and 1988b). These acquisitions would improve the manageability of these areas and their associated resources. As mentioned earlier, completing the proposed exchange would also enhance BLM's land ownership consolidation goals by improving access and improving the manageability of these lands.

DETAILED IMPACT ANALYSIS BY ALTERNATIVE, BY RESOURCE

In the following impact analysis, individual resources described in Chapter Three (Affected Environment) are discussed, with impacts to both Selected and Offered Lands affected by this proposed exchange.

IMPACTS OF ALTERNATIVE A (PROPOSED ACTION ALTERNATIVE)

Impacts to Ecological Sites/Vegetation (Selected and Offered Lands)

As a result of the conservation easement and the Pueblos's commitment not to develop these lands, vegetative and ecological site impacts would not occur except for the 980 acres that would probably be mined for sand and gravel. Over an extended period these 980 acres would be completely stripped of vegetation and associated ecological sites. Current gravel mining practices include removal and storage of topsoil to be replaced and reseeded as part of site reclamation, so in the long term the ecological sites and vegetation in the mined area will be returned to an approximation of those currently existing.

Relevant regulations and policies from various BLM programs would guide the activities occurring on the Offered Lands with the ecological site/vegetation remaining essentially as they are.

Impacts to Threatened, Endangered and other Special Status Species (Selected and Offered Lands)

A Biological Assessment was prepared on the proposed action for all listed, proposed and candidate species that could potentially occur within the Santo Domingo land exchange area (Refer to Appendix D). The determination of the Biological Assessment was that the proposed action would have a "No Effect" on all listed, proposed and candidate species due to lack of appropriate habitat to support any of the species within the proposed exchange area.

Because a finding of "No effect" was identified for all species involved, no formal concurrence on the determinations was requested from the U.S. Fish and Wildlife Service.

When the offered parcels become BLM lands, they will be treated as other public lands and all requirements of the Endangered Species Act will be followed.

Impacts to Water Resources (Selected and Offered Lands)

The Santo Domingo Pueblo has indicated it will mine sand and gravel in the W $\frac{1}{2}$ of Section 25, and those portions of Sections 26 and 35 within the exchange area. This could have an effect on Arroyo Largo and other drainage depending on how close to the channel or groundwater mining is permitted and the array of Best Management Practices implemented. Rehabilitation is a continuous process as waste material is placed back in the excavation areas, contoured and vegetation is re-established.

Generally, the potential impacts from a sand and gravel mine include visual and physical alterations of the topography, loss of vegetation and topsoil, increased sediment yields, alteration of hydrologic functions, contamination of both surface and ground water from petroleum product spills, noise, and dust. Another impact is the use of water for processing the material, dust abatement in the pit and on roads, and for drinking water. Under Proposed Action gravel would be mined within a 980 acre area. Based on water usage of 5 gallons per ton of material processed in local gravel operations and a reasonable development of about 266,500 tons per year, the proposed mine will need water rights for 5 acre feet of water per year.

With an aggressive modern nonpoint source pollution management effort, the potential for water quality impacts to surface and ground waters in Arroyo Largo and possibly Gallisteo Creek and the Rio Grande would be reduced to a minimum.

In the remainder of the proposed exchange area, the Santo Domingo Pueblo has given no indication of plans to make any changes in the landscape. There is no reason to expect impacts to soil or water resources in these areas as result of this exchange.

Under New Mexico water law, an appropriation water right is considered property and can be owned separately from the land it comes from or the land it is used upon. On BLM lands the water rights and land are separated by ownership. The appropriator owns only the right to use the water and not the water itself. There are conditions of amount, location, and time of use attached to the right. The right can be sold, traded, or transferred with approval of the Office of the State Engineer, and therefore has a market value. In the proposed exchange the private water rights on BLM land can be sold or traded on the open market, or transferred to another location. If the rights are transferred to another location the State Engineer may require that the abandoned well be plugged. The owners of these water rights will decide their disposition.

The water rights on the 520 foot deep cased well located on the Offered Lands in Santa Fe County will be transferred with the property and the BLM will ensure that the appropriate change-of-ownership forms are filed with the Office of the State Engineer. The water right for the 100 foot deep well could be retained by the present owner, but BLM would accept ownership of the right if offered. If retained in private ownership, use of the well would be negotiated with BLM through BLM's right-of-way grant issuance procedures.

Impacts to Wildlife (Selected Lands)

Under the Proposed Alternative, wildlife on the Selected Lands would no longer be managed under the guidelines of the Rio Puerco RMP (DOI, 1986); however, eventually decisions affecting wildlife would continue to be subject to NEPA regulations since this law would still apply under BIA's management. Hunting would probably be eliminated except for Pueblo members once the Pueblo or BIA assumed management of these lands.

Impacts to Wildlife (Offered Lands)

Wildlife on the Offered Lands would be managed according to the guidelines established by the Rio Puerco and Taos RMPs (DOI, 1986 and 1988a). Specifically, BLM's management would seek wildlife resources improvement or protection and would coordinate any actions to best suit the resources and uses of each area. Under BLM's laws for wildlife, management objectives for wildlife are to maintain habitat diversity, sustain ecosystem integrity, enhance aesthetic values, preserve the natural environment, and provide old growth habitat. These objectives would be accomplished somewhat through habitat manipulation such as mechanical thinning, prescribed fire, fencing and to a greater extent through mitigation established under NEPA.

Where the Offered Lands are within the boundaries of an ACEC, wildlife resources would be subject to the more detailed specifications of existing ACEC plans. Such plans may provide a higher level of

management and protection not presently exercised on the Offered Lands.

When acquired by BLM under the proposed plan, all Offered Lands would become subject to regulations under NEPA. Routine NEPA analysis is designed to provide greater detail regarding management actions than is currently required on private lands. NEPA also provides the BLM with the opportunity to coordinate and mitigate land use for the benefit of wildlife resources.

Impacts to Geology & Paleontology (Selected Lands)

No impacts to the geology of the Selected Lands would occur under the Proposed Action Alternative. Any known unique geological features present on the selected land area would be maintained under the Santo Domingo Pueblo ownership.

Extensive deposits of finely-preserved petrified wood, bivalve marine shells, and Eocene mammal bones exist within this nearby Ball Ranch ACEC; however, the coarse-grained deposits outside of the ACEC area are unlikely to contain well-preserved vertebrate fossil material.

Impacts to Geology & Paleontology (Offered Lands)

Several of the Offered Lands parcels identified contain paleontological resources that would be placed under Federal protection if the proposed exchange would occur.

There would be a positive impact to the acquisition of the final Offered Lands in Santa Fe County because of the potential for interpretation, science education and research of the volcanic features as part of the New Mexico landscape.

Impacts to Mineral Resources (Selected Lands)

A Mineral Report was prepared on December 2, 1999, which provides detailed information concerning the mineral potential of the Selected Lands area proposed to be exchanged. The report indicates that sand and gravel is the only mineral commodity that would be developed in the reasonable foreseeable future. If the land exchange were to occur, the Santo Domingo Pueblo would be able to issue mineral leases on the 980 acres of the Selected Land not covered by the Conservation Easement for tribal economic purposes.

Impacts to mineral resources as a result of the proposed exchange would stem from the U.S. Government and the American public not receiving the royalty benefits. These benefits could have been generated from mining almost 160 million cubic yards of sand and gravel resources in the Selected Lands area over time. However, due to the limits of recovering the resources at a profit, as well as traditional and cultural conflicts present in this area, it would have been highly unlikely that all this material would ever

be mined by either BLM or the Santo Domingo Pueblo.

The Mineral Report further indicates that it is reasonably foreseeable that up to three mines could be producing 1.2 to 1.5 million cubic yards of sand and gravel per year to supply the expanding nearby Albuquerque, Santa Fe, and Rio Rancho markets. Several of the larger mineral material operators are reaching the extent of their reserves and are currently looking for additional resources. Local companies have contacted BLM about their desire to produce this sand and gravel resource from public lands in the selected land area. (However, these companies have been denied their requests to mine since discussions began concerning the possibility of a land exchange on the Selected Lands area.)

In summary, the Santo Domingo Pueblo would receive economic benefits (via the BIA) from any mineral royalties derived from lands acquired as a result of the proposed land exchange, and the Federal government would not benefit from any of these royalties.

Impacts to Mineral Resources (Offered Lands)

Most of the Offered Lands that BLM would acquire as a result of this proposed land exchange would probably be incorporated into specially designated lands, such as an ACEC or SMA. Consequently, no surface disturbance, including mining, could occur on these lands. Lands not within these areas would be subject to available resource development and federal regulations.

The final Offered Lands in Santa Fe County are open to mineral entry under the Mining Law of 1872. There is a low potential for any minerals covered under the mining law, therefore, there is little likelihood for mining. There is a high potential for saleable minerals such as scoria. However, disposal of saleable minerals is a discretionary action under BLM regulations. Any proposal to mine scoria would be evaluated on a case by case basis for its impacts to the property. This is the current management situation since BLM owns all the mineral estate.



The BLM owns only the gold, silver and quiksilver on the final Offered Land in Taos County. The remaining mineral estate would be transferred to the BLM. The Offered Land is within the Orilla Verde Recreation Area and is proposed to be withdrawn from location and entry under the United States mining law. A "no surface occupancy stipulation" would be applied for oil and gas leasing.

Impacts to Land Uses (Selected Lands)

The Selected Lands affected by this Proposed Action Alternative contain three historical access roads that are used by adjacent landowners to reach their private lands and an access road used to reach state lands. Through a letter to these landowners dated May 19, 1998, and at a subsequent meeting, the BLM requested landowners to mark these roads on a map to aid in mitigating landowner concerns about access (see Map 3). Landowner access would be established between individual landowners and the Pueblo. If agreement could not be reached BLM would issue rights-of-way for the historical road prior to completing the exchange. The patent would be subject to the right-of-way.

Also, the Public Service Company of New Mexico would need to negotiate directly with the Santo Domingo Pueblo instead of the BLM to obtain new rights-of-way after the proposed exchange is in effect. The Pueblo would likely have different requirements for right-of-way corridors than currently exist on public land. The two power line rights-of-way currently within the existing designated corridor will be reserved in the patent and would continue to be managed by the BLM. *(A future fee schedule between the Santo Domingo Pueblo and PNM has been discussed but agreement has not been reached. If an agreement can be reached these rights-of-way will not be reserved by the BLM.)* The remaining natural gas pipeline right-of-way will be made subject to that right on the patent.

Further impacts to current land uses as a result of the proposed land exchange would be that: State and county highway departments may not be able to obtain additional, needed rights-of-way for new roads. Additionally, the opportunity for state and local governments and non-profit organizations to obtain public lands through the Recreation and Public Purposes Act (R&PPP; see Appendix C) at less than fair market value would be eliminated on the Selected Lands.

Impacts to Land Uses (Offered Lands)

New rights-of-way activities would be restricted on the lands lying within areas specially designated for environmental and resources protection. New rights-of-way in areas outside the designated areas will be considered subject to NEPA laws (see Appendix C and the Rio Puerco and Taos RMP's). Existing authorized uses on the Offered Lands would be protected, such as current Federal mineral leases and existing rights-of-way. Current rights-of-way holders would be contacted and informed of the change of

land ownership, and they would be encouraged to obtain new authorization from BLM.

In some cases under the proposed exchange, State and county-maintained public roads and highways cross portions of the Offered Lands, providing access routes for the general public to outlying areas. However, due to the remote nature of many of these lands, these occurrences would be minimal.

Land acquired within a withdrawal area will be subject to the terms and conditions of that withdrawal.

The final Offered Lands in Taos County are proposed to be withdrawn from location and entry under the United States mining law through the BLM land withdrawal process.

Impacts to Wilderness (Selected Lands)

Under the proposed alternative, no impacts would occur to wilderness on the affected Selected Lands, as none of these lands are within or adjacent to designated wilderness areas or WSAs.

Impacts to Wilderness (Offered Lands)

Acquiring the private inholdings and lands adjacent to WSAs would greatly enhance wilderness values and improve the BLM's ability to manage these areas to maintain their primitive nature.

No impacts to wilderness would occur on the final Offered Lands, as none of these lands are within or adjacent to designated wilderness areas or WSA's.

Impacts to Recreation (Selected Lands)

As indicated in the Recreation section of Chapter Three, the use of these lands for recreational purposes has not been extremely high because of public access problems. However, the proposed transfer of the Selected Lands to the Santo Domingo Pueblo would likely eliminate the public's opportunities for motorized recreational access to 5,000 acres presently accessible by motor vehicle and mountain bikes and access to the total 7,376 acres presently available to non-motorized recreational activities. Noncommercial, noncompetitive and non-organized recreational activities on Federal lands are currently available to the public at no cost. Should the Santo Domingo Pueblo allow limited recreational access, a fee would most likely be charged.

Impacts to Recreation (Offered Lands)

Under the proposed action, the transfer of the Offered Lands to the BLM would add to the public recreation opportunities in those areas. Recreational use on any lands transferred to the BLM would become subject to the Federal rules and regulation governing the recreational use and occupancy of public lands, areas, sites, and facilities. When Offered Lands within the boundaries of an ACEC or WSA are transferred to BLM, recreational use would become sub-

ject to management prescriptions and policies established to protect the specific values found in these areas.

Impacts to Visual Resources (Selected Lands)

Under the proposed alternative, the overall impacts to visual resources on the Selected Lands would be reduced as a result of a conservation easement placed on the Selected Lands except for 980 acres within the W½ of Section 25 and Sections 26 and 35, T. 14 N., R. 6 E., NMPM (see Map 3). Provisions within the easement were established by BLM to preserve these substantial, undisturbed selected lands in their natural state. Within the excepted lands, the construction or placement of buildings and other structures would be permissible as well as the extraction of sand, gravel, rock or other material on or below the surface.

The 7,376 acres of Selected Lands are classified in the Rio Puerco RMP (DOI, 1986) as BLM Visual Resource Management Class IV, a class that is considered to be of lower scenic quality and which allows for evident contrasts to the basic landscape elements as a result of management activities. If the Selected Lands were transferred under the Proposed Alternative to the Santo Domingo Pueblo, visual resource management objectives established by the BLM through its classification system would then of course no longer apply. As a result of this proposed transfer, a loss of 7,376 acres of VRM Class IV lands would occur within the administrative boundaries of the BLM's Albuquerque Field Office.

Also (if this alternative were chosen), the public would not be assured that attempts to minimize visual impacts from extractive uses and placement of structures on the excepted lands within the Selected Lands would occur. If not effectively controlled, impacts to the visual resources could be substantial if a high degree of human modification occurred to the [presently] relatively undisturbed landscape.

Impacts to Visual Resources (Offered Lands)

Acquisition of the Offered Lands would give the BLM the authority to manage the visual resources of those lands. Most of the lands are located in or adjacent to existing special management areas classified as VRM Class II, which does not allow changes to the landscape that would attract attention. Acquisition of these lands would assist in maintaining the visual quality of those areas.

Acquisition of the final Offered Lands in Santa Fe County would diminish the potential for further disruptive developments and provide opportunities for visual resource enhancements.

Acquisition of the Offered Lands in Taos County would help maintain the landscape's natural appearing character by applying management objectives

that would help prevent visually prominent changes in the form, line, color, and texture present in the existing characteristic landscape.

Impacts to Air Quality and Noise (Selected and Offered Lands)

Sand and gravel mining would likely take place in the selected lands. Air quality would decrease as levels of air-borne particulate matter increase. It is expected that mitigation measures would be used to lower the level of particulate matter. It is expected that state and federal air quality standards would be met. Noise levels would increase in the mining area as a result of heavy equipment operating. These noises would be concentrated near the mine and there are no residential areas near the likely mined area, therefore, the impacts to human environment would be low.

Impacts Related to Hazardous Materials (Selected Lands)

An Environmental Site Assessment (ESA) was conducted on all lands affected by this EIS. They have been examined using the American Society for Testing and Materials (ASTM) protocols Standard Practice for Environmental Site Assessments: Transaction Screen Process (ASTM, 1993), and in accordance with Section 120(h) of the Superfund Amendments and Reauthorization Act (SARA). No evidence exists to indicate that any hazardous material (the term includes hazardous substances, wastes, or other materials) was stored for one year or more, disposed of, or released on the affected land exchange property.

If during gravel mining, there is a petroleum product related spill, the company would be required to clean up the spill to meet the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Environmental Protection Agency (EPA) who has jurisdiction over environmental matters on tribal lands.

Impacts Related to Hazardous Materials (Offered Lands)

If the proposed alternative is chosen and once lands are identified (see Maps 4(a-e)), a hazardous materials survey would be conducted on the Offered Lands. Information from this survey report would provide the basis for a BLM decision to delete certain parcels from the proposed exchange (if hazardous materials were found), thus, there would be no impacts regarding hazardous material management [on the Offered Lands portion].

The final Offered Land in Santa Fe County have been determined to contain Recognized Environmental Conditions (REC) as defined by the Standard Practice by the ASTM protocols. The purchase agreement between Santo Domingo and the current owner calls for evaluation and remediation of the REC.

The final Offered Land in Taos County contains no hazardous materials, therefore, there would be no impacts regarding hazardous materials management.

Impacts to Cultural Resources (Selected Lands)

It is anticipated that most of the lands acquired by Santo Domingo Pueblo as a result of this action will be placed in Trust and managed by the BIA. Any cultural resources located on these lands would remain under the protection of the National Historic Preservation Act, the Archeological Resources Protection Act, and other Federal laws pertaining to cultural resources (see Appendix C). Cultural resources on lands held in trust would be less vulnerable to effects related to public visitation, such as pothunting and surface collection. The conservation easement would prohibit most surface disturbing actions, and most proposals for surface disturbing actions allowable under the conservation easement would still require Federal approval, and would therefore be subject to National Historic Preservation Act compliance. However, actions which do not involve alienation of the lands and resources and which also do not involve use of Federal funds could take place without further National Historic Preservation compliance.

The 980 acres which will be developed for sand and gravel will eventually be placed in trust. They will not be subject to the conservation easement. Under the National Historic Preservation Act, BLM is consulting with the New Mexico SHPO to determine appropriate treatment of cultural resources located on these lands.

Impacts to Cultural Resources (Offered Lands)

Cultural resources on lands which might be transferred to BLM through this proposed land exchange are currently privately owned. New Mexico state law prohibits the excavation of human burials except under carefully controlled circumstances, but otherwise treatment of cultural resources on private lands is entirely at the owner's discretion. Any cultural resources transferred to BLM under this proposed alternative would become subject to Federal laws protecting the resources from vandalism and inadvertent destruction.

Impacts to American Indian Uses (Selected Lands)

Under the Proposed Alternative, if lands currently administered by BLM are transferred to the Santo Domingo Pueblo and held in trust by the BIA, then American Indian (Pueblo) traditional, historical, and cultural access and uses would be aided by the Pueblo tribal government's direct supervision. In addition, the privacy often required for these uses by the Pueblo would be greatly enhanced.

Impacts to American Indian Uses (Offered Lands)

Under the proposed action alternative, lands which are currently privately owned would become public lands. In most cases, this [proposed change of

ownership] would enhance American Indian access for traditional, historical and cultural uses. However, privacy required for those uses by the Pueblo could be reduced.

Impacts to Rangeland Management (Selected Lands)

Under the Proposed Alternative, the grazing permittees within the proposed Selected Lands area would be negatively effected by losing most of their grazing privileges, unless they could negotiate an agreement with the Santo Domingo Pueblo. The operator would retain public land grazing privileges (within the Ball Ranch ACEC), amounting to about 30 percent of that operator's original allotment. [If the proposed exchange were to occur] and after it is in effect, a short grace period could occur, allowing livestock operator to finish the current year's grazing season so that they could then find other lands to graze their livestock on.

Under the Proposed Alternative, no impacts to livestock grazing would occur on the selected lands except for the economic impacts outlined in Table 4-1, which lists the number of livestock currently permitted for allotment on the Selected Lands area and the number of livestock that would be maintained if the land exchange were to occur (based on BLM case files). These numbers, include the livestock permitted on the combined Federal, state and private lands. Approximately seven acres of land are required for forage of each livestock animal per month. As shown, the permittees will experience significant changes in his allotment if the land exchange occurs.

TABLE 4-1

ANIMAL UNIT MONTHS (AUM's) PERMITTED - CURRENT ALLOTMENT & AFTER PROPOSED EXCHANGE

Allotment Name/ #	Current Allotment	After Proposed Santo Domingo Exchange
Ortiz Mountain/118	2,860	1,773

Allottees having Section 4 Permits under the Taylor Grazing Act (see Appendix C) have the option of salvaging range improvements, such as windmills, drinking troughs, fencing materials, etc., or requesting that BLM compensate them for the value of these improvements. Allottees having cooperative agreements with the BLM would not recoup the salvage value or the labor they have invested in range improvements.

Impacts to Rangeland Management (Offered Lands)

Under the proposed action, any lands acquired by BLM within an existing grazing allotment would be

incorporated into the allotment. Lands outside existing allotments would have to be dealt with on a site specific basis. Adjacent land owners with base property could make application to graze these lands. Applications must meet the qualifications specified in 43 CFR 4110. BLM would make a decision on competing applications based on the factors found in 43 CFR 4130.1-2. BLM must also comply with NEPA by analyzing the site specific impacts of grazing before issuing a permit.

Under the proposed action, the grazing permittee would benefit from the BLM's range improvement fund, which makes funds collected from grazing fees available for range improvements. In addition, the BLM has provisions for refunding grazing fees and for taking fee-free non-use of an allotment if approved by the authorized officer.

In accordance with management prescriptions of the Orilla Verde Amendment to the RMP livestock grazing is prohibited within the Rio Grande gorge. This will continue in effect and apply to the proposed Offered Lands in Taos County.

Impacts to Socio-Economic Conditions (Selected Lands)

The terms of the proposed exchange, which are intended to minimize the environmental impacts that are created, also require that BLM receive title to lands in areas identified in BLM's planning areas with special resources values in exchange for the Selected Lands. Under the proposed action, the Pueblo will accept a conservation easement on the Selected Lands from BLM which excludes surface-disturbing activities or development but does allow for grazing and traditional cultural practices to continue.

The Pueblo essentially would have uninterrupted use of the land for traditional cultural practices. Grazing would continue, but the tribe would issue the permits [instead of BLM], and they may restrict use strictly to the tribe or its members. If the Pueblo agrees, the current BLM permit holder would likely continue to run livestock, but they would have to compete for private or state land grazing. Having to compete for other grazing would be socially disruptive to those who have operated the same allotments for many years.



In addition, the public who currently use the Selected Lands for recreational and open space uses will have to find other areas to use, areas that probably would be less convenient.

Sandoval County would receive less income from in-lieu-of-tax payments. Based on the payment received per entitlement acre for 1999 this reduction would be approximately \$11,000. This amount is less than 1 percent of the County's recent budget. The non-development commitment under the conservation easement would not allow surface disturbing development on most of the selected acreage. Thirteen hundred acres of the selected lands were not covered by the easement and it is the Pueblo's intent to develop mineral materials on these lands. It would be a positive long-term impact resulting in the creation of jobs and income over many years. Sandoval County's 1998 employment estimates show mining accounting for less than 1 percent of the County jobs and personal income. There were 76 mining jobs, by place of employment, for 1998. The Pueblo's potential mining operation would double that number in direct employment impacts. The indirect effects would be expected to approximately double it again. This total change would be approximately .7 percent of the 1998 Sandoval County non-farm wage and salary employment.

Impacts to Socio-Economic Conditions (Offered Lands)

Under the proposed alternative, in-lieu-of-tax payments would likely replace the payments lost for the Selected Lands. *They will not be paid to the same counties. Sandoval County will have a reduced entitlement acreage and Santa Fe and Taos County will have increased entitlement acreage. The entitlement acreage is a part of the basis for determining the in-lieu-of-tax payment.*

IMPACTS OF ALTERNATIVE B (NO CONSERVATION EASEMENT)

Impacts to Ecological Sites/Vegetation (Selected and Offered Lands)

After transfer to the Santo Domingo Pueblo, the Selected Lands area would be administered under the laws and policies pertinent to the Pueblo. Therefore, it is assumed that the pueblo would develop approximately 2,280 acres for sand and gravel mining and 1,500 acres for residential/businesses as described in Chapter 2. This would result in a larger conversion of the area's ecological sites and vegetation to those typical of a gravel pit or suburban development area. Gravel mining impacts would likely be the same, for an additional 1,300 acres, as those for the proposed action. Suburban development impacts could include: pavement for roads, and parking lots; denudation of native vegetation surrounding buildings and houses; fences; and replacement of native vegetation with exotic "garden" types of plants.

Relevant regulations and policies from various BLM programs would guide the activities occurring on the Offered Lands with the ecological sites/vegetation remaining essentially as they are.

Impacts to Threatened, Endangered and other Special Status Species (Selected and Offered Lands)

A Biological Assessment was prepared on the proposed action for all listed, proposed and candidate species that could potentially occur within the Santo Domingo land exchange area (Refer to Appendix D). The determination of the Biological Assessment was that the proposed action would have a "No Effect" on all listed, proposed and candidate species due to lack of appropriate habitat to support any of the species within the proposed exchange area.

Because a finding of "No effect" was identified for all species involved, no formal concurrence on the determinations was requested from the U.S. Fish and Wildlife Service.

When the offered parcels become BLM lands, they will be treated as other public lands and all requirements of the Endangered Species Act will be followed.

Impacts to Water Resources (Selected Lands)

For most of the exchange area the impacts would be similar as under Alternative A. The exception would be as the number of acres mined and tons of gravel produced is doubled we can expect the impacts to ground water usage to double. Additional water rights would be required for approximately 10 acre feet per year. The withdrawal of 10 acre feet per year may impact adjacent wells. A separate study would be needed to make that determination. In addition, this alternative proposes to develop 1,500 acres as residential/business along County Road 252A (formerly State Road 22). A planned development of this size and remote from any existing development would probably develop its own water and sewer utility system. Assuming a development with between 150 to 300 families the amount of water required would range between 33 to 67 acre feet a year. Water rights would need to be established. There would be increased soil erosion and runoff from construction activities and new roads. The sediment and runoff can be controlled and would be reduced as construction ends and landscaping takes effect.

Impacts to Wildlife (Selected Lands)

Lands allocated to Pueblo residential and or commercial/business use would have a significantly different wildlife community. The pre-exchange amphibian, mammal, and reptile species will be displaced by buildings, parking sites and streets. The species present will depend on the degree of landscaping done around Pueblo homes and commercial/business development.

Typical suburban, commercial/business tree and shrub landscaping will make a predominately bird and possibly bat dominated animal community. Depending on the density of housing, there would be some recolonization by the more habitat flexible small mammals and reptiles.

Impacts to Wildlife (Offered Lands)

Impacts to the Offered Lands would be the same as those described under the Proposed Action Alternative.

Impacts to Geology & Paleontology (Selected Lands)

Impacts to the Selected Lands would be the same as those described under the Proposed Action Alternative.

Impacts to Geology & Paleontology (Offered Lands)

Impacts to the Offered Lands would be the same as those described under the Proposed Action Alternative.

Impacts to Mineral Resources (Selected Lands)

Under this alternative approximately 2,280 acres are assumed to be available for mining sand and gravel so the production would be much greater depending on the demand.

Impacts to Mineral Resources (Offered Lands)

Impacts to the Offered Lands would be the same as those described under the Proposed Action Alternative.

Impacts to Land Uses (Selected Lands)

Under Alternative B, there would be no legal restrictions on future development, therefore, it is likely that land uses in the long term would be development of an additional 1,300 acres for sand and gravel and 1,500 acres for Pueblo residential/businesses. Access for this development would be from County Road 252A (formerly State Road 22).

Impacts to Land Uses (Offered Lands)

Impacts to the Offered Lands would be the same as those described under the Proposed Action Alternative.

Impacts to Wilderness (Selected Lands)

Under this proposed alternative, no impacts would occur to wilderness values on the affected Selected Lands, as none of these lands are within or adjacent to designated wilderness areas or WSAs.

Impacts to Wilderness (Offered Lands)

Acquiring private inholdings and lands adjacent to WSAs and wilderness areas would greatly enhance wilderness values, e.g., naturalness and the opportunity to participate in an unconfined type of recreation activity over a larger area, and improve the BLM's ability to manage these areas to maintain their primitive nature.

Impacts to Recreation (Selected Lands)

As indicated in the Recreation section of Chapter Three, the use of these lands for recreational purposes has not been extremely high because of public access problems. However, the proposed transfer of the Selected Lands to the Santo Domingo Pueblo would likely eliminate the public's opportunity for motorized recreational access to 5,000 acres presently accessible by motor vehicle and mountain bikes and access to the total 7,376 acres presently available for dispersed non-motorized recreational activities. Noncommercial, noncompetitive and non-organized recreational activities are currently available to the public at no cost.

Should the Santo Domingo Pueblo allow recreational access to the acquired lands that would not be encumbered by development or the extraction of sand, gravel or rock (3,596 acres), the users would likely be subject to specific terms and conditions set by the Pueblo for use of these lands, which could include a fee.

Impacts to Recreation (Offered Lands)

Under this alternative, the transfer of the Offered Lands to the BLM would add to the public recreation opportunities in those areas. Recreational use on any lands transferred to the BLM would become subject to the Federal rules and regulations governing the recreational use and occupancy of public lands, areas, sites and facilities.

Impacts to Visual Resources (Selected Lands)

The 7,376 acres of selected lands are classified in the Rio Puerco RMP as BLM Visual Resource Management Class IV, a class that is considered to be of lower scenic quality and which allows for evident contrasts to the basic landscape elements as a result of management activities. If the Selected Lands were transferred under this alternative to the Santo Domingo Pueblo, visual resource objectives established by the BLM through the classification system would no longer apply. As a result of this proposed transfer, a loss of 7,376 acres of VRM Class IV lands would occur within the administrative boundaries of the BLM's Albuquerque Field Office.

The public would not be assured that attempts to minimize visual impacts from extractive mineral uses and the placement of structures from residential or business/commercial developments within the

3,780 acres assumed to be available for these types of uses would occur. If not effectively controlled impacts from the development to the visual resources could be substantial, dominate the presently undisturbed landscape.

Impacts to Visual Resources (Offered Lands)

Acquisition of the Offered Lands would offset the loss of Class IV lands with the gain of lands considered to have higher scenic quality values. Most of the lands are located in or adjacent to existing special management areas classified as VRM Class II, which does not allow changes to the landscape that would attract attention. Acquisition of the Offered Lands would also assist in maintaining the visual quality of these areas over the long-term by providing control of surface modifications.

Impacts to Air Quality and Noise (Selected and Offered Lands)

Sand and gravel mining would likely take place in the selected lands. Air quality would decrease as levels of air-borne particulate matter increased. It is expected that the level of air-borne particulate matter would be decreased through the implementation of mitigative measures.

Noise levels would increase in the mining area as a result of heavy equipment operating. These noises would be concentrated near the mine and there are no residential areas near the area likely to be mined, therefore, the impacts to human environment would be low.

Impacts Related to Hazardous Materials (Selected and Offered Lands)

Impacts to the Selected and Offered Lands would be the same as those described under the Proposed Action Alternative.

If during gravel mining, there is a petroleum product related spill, the company would be required to clean up the spill to meet the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). And the Environmental Protection Agency (EPA) who has jurisdiction over environmental matters on tribal lands.

Impacts to Cultural Resources (Selected Lands)

Transfer of lands to Santo Domingo Pueblo without a conservation easement would leave cultural resources vulnerable to impacts during the interval between their conveyance in fee and the time when they are placed in trust. Once placed in trust most, but not all surface disturbing actions would be subject to National Historic Preservation Act compliance under BIA administration. Exceptions consist of actions undertaken by the Pueblo which do not require Federal funds or BIA approval.

Impacts to Cultural Resources (Offered Lands)

Impacts to Offered Lands under Alternative B are the same as under the Proposed Action.

Impacts to American Indian Uses (Selected Lands)

Alternative B assumes that some development would occur on the Selected Lands, but that the development would avoid direct impacts to American Indian uses. However, development could result in secondary impacts. Noise, dust, and increased traffic associated with expanded mineral development could intrude upon traditional activities. Real estate development would dramatically increase the numbers of people in the area. This would reduce privacy which is required for many traditional activities and could result in serious trespass issues.

Impacts to American Indian Uses (Offered Lands)

Impacts to Offered Lands under Alternative B are the same as under the Proposed Action Alternative.

Impacts to Rangeland Management (Selected Lands)

Approximately 234 AUMs would be foregone under this alternative in the long term.

Impacts to Rangeland Management (Offered Lands)

Impacts to Offered Lands for rangeland management under Alternative B would be the same as for the proposed action.

Impacts to Socio-Economic Conditions (Selected and Offered Lands)

The economic impacts for this alternative for sand and gravel mining would be similar to the impacts of the proposed action alternative. The magnitude of the impacts would be increased because additional acres would be available for development and it is expected that more than one operation would be developed. Two operations would be expected to add an additional 70+ employees. With the indirect employment the total increase in employment would approach 300 jobs under this alternative. Construction employment would increase related to the residential and business construction. There is no specific plan for this development at this time therefore it is assumed that it would occur gradually over a ten to fifteen year period and that the direct jobs would not exceed 100 in any given year.

IMPACTS OF THE NO ACTION ALTERNATIVE (SELECTED AND OFFERED LANDS)

The No Action Alternative would have no effect on any Federal or state grazing leases, oil and gas leases, or rights-of-way, since administrative jurisdiction currently in place would remain the same. The

status of the affected selected land area would remain unchanged.

Under the No Action Alternative, the Offered Lands [identified for exchange under the Proposed Action Alternative] would not be acquired and the existing mixed land ownership pattern with Offered Land sections intermingled within blocks of public land, would continue. These lands would not become BLM lands within or adjacent to designated areas or high priority acquisition area. Therefore, the opportunities to enhance management of these areas through consolidation would be foregone. Additional opportunities to protect primitive recreational opportunities, wildlife, scenic and wilderness values, and cultural resources under Federal law would also be foregone.

Listed in the following section are more specific impacts related to the No Action Alternative which apply to both the Selected Lands and Offered Lands that the BLM would acquire from exchange with the Pueblo.

Impacts to Ecological Sites/Vegetation

The ecological sites and vegetative resources within the proposed exchange area would remain unaffected under the No Action Alternative. Relevant regulations and policies from various BLM programs would continue to guide the activities with the ecological sites/vegetation remaining essentially as they are.

The Offered Lands area would be administered under the laws pertinent to private property. Therefore, the owners would be free to develop any lands in their possession.

Impacts to Threatened, Endangered, and Other Species

Rejection of the Proposed Action Alternative would leave habitats that are important for the American Peregrine falcon, the bald eagle and the southwestern willow flycatcher in private ownership, therefore, the protective requirements of the Endangered Species Act would not be applied.

Impacts to Water Resources

Under this alternative the gravel mining would take place but no residential/business development would occur along County Road 252A (formerly State Road 22). The impacts for the gravel mine would be as much as 10 acres feet of water per year. With no change in ownership there would be no impact to grazing permittees or their water rights.

Impacts to Wildlife

Under the No Action Alternative, the public would continue to have access to recreational hunting and other non-hunting wildlife oriented recreation. The existing land ownership pattern would remain as it is, and numerous opportunities to block up lands and to better manage wildlife habitat in WSAs,

ACECs, riparian areas, and SMAs through consolidation would be postponed.

Impacts to Geology/Minerals/Paleontology

Rejection of the Proposed Action Alternative would keep the selected area's mineral estate within the jurisdiction of the Federal government and the public. Since the Reasonable Foreseeable Development potential for mining minerals other than sand and gravel is low, as stated in the mineral report, minimal effect would occur from mining or developing these commodities.

However, the sand and gravel resources could then be mined under the pertinent Federal regulations instead of under the Santo Domingo Pueblo and the BIA, and the potential royalties would instead benefit the public. The Federal government and the American public would benefit from royalties that could be generated from mining as much as 200 million cubic yards of sand and gravel resources. However, due to limits of economic recovery as well as Pueblo traditional and cultural conflicts present in this area, it would be unlikely that all this material would ever be mined by the BLM. However, as stated in Chapter Three, the Santo Domingo Pueblo would not directly benefit from any royalties related to mining the selected land area.

Because the exchange would not occur under the No Action Alternative, the mineral estate and the paleontological resources on the Offered Lands would not come under Federal jurisdiction and protection and therefore surface disturbance could occur.

Impacts to Land Uses

Current access by private landowners would be maintained across public lands under the No Action Alternative. Utility companies, such as the Public Service Company of New Mexico, would work with BLM to obtain new rights-of-way for new power lines and pipelines. As neighboring communities grow, the opportunity for state and local governments and non-profit organizations to obtain public lands through the Recreation and Public Purposes Act (R&PPP) would occur at less than fair market value for parks, schools, etc.

Impacts to Wilderness

The No Action Alternative could affect wilderness resources by the present landownership patterns within and adjacent to WSAs remaining unchanged, perpetuating associated management problems. Opportunities to further enhance WSA management through consolidation would be delayed.

Impacts to Recreation

The BLM retaining the exchange area lands would allow continued recreational opportunities within the area. However, the enhanced recreational opportunities resulting from consolidating land

ownership in the specially managed areas now privately owned would be delayed.

Impacts to Visual Resources

The lower quality VRM Class III and IV lands in the proposed exchange area would remain essentially unaffected under the No Action Alternative, except as previously identified in visual resources impacts under the Proposed Action Alternative. Opportunities to strengthen visual resources management in the specially managed areas by acquiring higher quality Class II lands would be lost.

Impacts to Air Quality and Noise

Sand and gravel mining would likely take place in the selected lands. Air quality would decrease as levels of air-borne particulate matter increased. It is expected that the level of air-borne particulate matter would be decreased through the implementation of mitigative measures. Noise levels would increase in the mining area as a result of heavy equipment operation. These noises would be concentrated near the mine and there are no residential areas near the likely mined area, therefore, the impacts to human environment would be low.

Impacts Related to Hazardous Materials

Under the No Action Alternative, there would be no impacts related to hazardous materials.

Impacts to Cultural Resources (Selected Lands)

Rejection of the Proposed Action Alternative would have no effect on cultural resources within the affected exchange area lands. These resources would continue to be managed under existing federal laws by the BLM.

Impacts to Cultural Resources (Offered Lands)

Under the No Action Alternative, private landowners would continue to manage cultural resources at their own discretion. No further cultural resources would be brought under Federal protection. Cultural properties would continue to be administered under state law.

Impacts to American Indian Uses (Selected Lands)

If the proposed exchange were not completed, American Indian (Pueblo) traditional, historical, and cultural access and uses would continue to be impeded by a mixed pattern of land ownership and lack of privacy, which probably would increase because of the ever-growing population in the nearby areas.

Impacts to American Indian Uses (Offered Lands)

Under the No Action Alternative, access for and protection of American Indian (Pueblo) traditional, historical, and cultural uses would continue to be subject to the discretion of the private landowners.

Impacts to Rangeland Management

Choosing the No Action Alternative would have no effect on existing livestock grazing uses. The grazing leases would continue to be managed by the BLM, and the allottees would not be adversely affected by losing all or most of their grazing privileges. In addition, there would be no need for the allottees to negotiate agreements with the Santo Domingo Pueblo and the BIA.

Impacts to Socio-Economic Conditions

Under the No Action Alternative, the Pueblo people's use for traditional cultural practices would continue to be interrupted by recreational uses of the public who use the area as open space primarily for recreational purposes. Neither the Pueblo use nor the public use is documented specifically nor has the use been quantified; the conflicts that exist have probably existed for some time and [supposedly] have been tolerated. The increased concentration of population and development in the area undoubtedly intensifies the [hidden] conflicts.

Utility rights-of-way extend through the selected lands and monitoring and maintenance there (under the No Action Alternative) would also conflict with traditional cultural practice unless there is close coordination between the utility companies and the Pueblo leaders. Additional rights-of-ways could be approved, likely increasing any present conflicts.

One livestock grazing allotment is authorized on the Selected Lands and 3,396 animal unit months of livestock grazing are used by the livestock operator who have social values associated with the ranching lifestyle. Permits for livestock grazing would continue under this alternative, and the ranching lifestyle would be maintained.

Other economic activities such as mining and real estate subdivision developments would cause additional opportunities for interference with traditional cultural practices.

The economic impacts for mineral development under this alternative would be similar to and nearly equal to those identified in Alternative B.

The in-lieu-of-tax payments in 1998 for Sandoval County was estimated at \$1,439,305. The entitlement acres total 926,060, making an average payment of \$1.55 per acre. The selected acres would represent approximately \$11,400 of the current in-lieu-of tax payment.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the Proposed Action Alternative. For this analysis, short term refers to the period

involved for implementing the plan (within approximately five years), and long term refers to a 5 years or more (unless otherwise noted under a specific resource).

Short term use would not interfere with potential for long term productivity for any of the alternatives.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Proposed Action Alternative— The irreversible impacts likely to occur under this alternative would be the production and use of 500,000 to 750,000 cubic yards of sand and gravel per year. Once produced and used this resource would no longer be available. An additional irreversible impact would be the loss of 7,376 acres of public land to general public access. On the positive side this land would become available for Pueblo traditional cultural use.

The irremediable impacts on less than 100 acres per year would occur as the vegetative material removed to make way for sand and gravel production is not available for wildlife, livestock or other uses.

Alternative B— The irreversible impacts likely to occur under this alternative would be the production and use of 1.0 to 1.5 million cubic yards of sand and gravel per year. Once produced and used this resource would no longer be available. An additional irreversible impact would be the loss of 7,376 acres of public land to general public access. On the positive side this land would become available for Pueblo traditional cultural use.

No Action Alternative— The irreversible impacts likely to occur under this alternative would be the production and use of 1 to 1.5 million cubic yards of sand and gravel per year. Once produced and used this resource would no longer be available.

The irremediable impacts on less than 100 to 200 acres per year would occur as the vegetative material removed to make way for sand and gravel production is not available for wildlife, livestock or other uses.



CUMULATIVE IMPACTS (SELECTED LANDS)

Proposed Action Alternative— This alternative, through the conservation easement, is intended to maintain ecological sites on 6,396 acres of the Selected Lands. Surface disturbing activities would not take place on these lands. Ecological sites would be maintained on an additional 15,627 acres in the area adjacent to the Selected Land. This acreage is currently in Federal ownership with 9,460 acres proposed for exchange and 6,167 acres to be retained as the Ball Ranch ACEC. It is expected that only the ACEC acreage would continue to be available for general public use. Current habitat would be maintained on approximately 22,023 acres.

Ecological site conditions on Offered Lands are not likely to be changed in the short-term. In the long-term treatments would be applied to some acres to move their ecological condition toward their potential natural condition (PNC).

A major water use associated with the exchange would result from sand and gravel mining. The proposed action would result in at least one mining operation. Based on data from one of the existing nearby operations it is estimated that the proposed operation would use approximately 5 acre feet of water per year. The total water use for sand and gravel mining between Bernalillo and the Selected Land area is estimated not to exceed 25 acre feet per year. We do not have the data to estimate all water uses.

Lands available for public recreational use would be reduced by the 7,376 acres of selected lands under this alternative. In recent months title to an additional 27,884 acres have been transferred to or are being considered for transfer to pueblo ownership in either Sandoval or Santa Fe Counties. Completion of these transfers would eliminate 35,260 acres from general public access. Some of these acres may be replaced by Offered Lands in these same Counties. Others may become available in other Counties.

Social and economic impacts under this alternative indicate that the pueblo would control use on an additional 7,376 acres this should reduce interruptions to the exercise of traditional cultural practices. The pueblo currently has 48,859 acres on which they control access and use. It would on the other hand eliminate general public use of these additional 7,376 acres of land. These changes bring social changes to the lives of potential and/or former land users.

Economically jobs and income will be impacted. Sandoval County's 1998 employment estimates show mining accounting for less than 1 percent of the County jobs and personal income. There were 76 mining jobs, by place of employment, for 1998. The Pueblo's potential mining operation would be expected to nearly double that number in direct employment impacts. The indirect effects would be expected to add an approximately equal number bringing the total mining employment to near 230 jobs. This total would be

less than one percent of the 1998 Sandoval County non-farm wage and salary employment.

Alternative B— This alternative, in the long-term, would maintain ecological sites on 3,276 acres of the selected lands. Ecological sites would be maintained on an additional 15,627 acres in the area adjacent to the selected land. This acreage is currently in Federal ownership with 9,460 acres proposed for exchange and 6,167 acres to be retained as the Ball Ranch ACEC. It is expected that only the ACEC acreage would continue to be available for general public use. Current habitat would be maintained on approximately 18,900 acres.

Ecological site conditions on Offered Lands are not likely to be changed in the short-term. In the long-term treatments would be applied to some acres to move their ecological condition toward their potential natural condition (PNC).

A major water use associated with this alternative would result from residential/business development and sand and gravel mining. This alternative proposes development of two or more mining operations. Based on data from one of the existing nearby operations it is estimated that the proposed operations would use approximately 15 acre feet of water per year. The total water use for sand and gravel mining between Bernalillo and the selected land area is estimated not to exceed 40 acre feet per year. The estimate of water use for proposed residential/business development is based on Albuquerque usage and is estimated at 33 to 67 acre feet per year. The cumulative use including local mining and actions under this alternative are estimated between 70 and 110 acre feet per year. We do not have the data to estimate all water uses.

Lands available for public recreational use would be reduced by the 7,376 acres of selected lands under this alternative. In recent months title to an additional 27,884 acres have been transferred to or are being considered for transfer to pueblo ownership in either Sandoval or Santa Fe Counties. Completion of these transfers would eliminate 35,260 acres from general public access. Some of these acres may be replaced by Offered Lands in these same Counties. Others may become available in other Counties.

Social and economic impacts under this alternative indicate that the Pueblo would control use on an additional 7,376 this should reduce interruptions to the exercise of traditional cultural practices. The pueblo currently has 48,859 acres on which they control access and use. It would on the other hand eliminate general public use of these additional 7,376 acres of land. These changes bring social changes to the lives of potential and/or former land users.

The economic impacts for this alternative for sand and gravel mining would be similar to the impacts of the proposed action alternative. The magnitude of the impacts would be increased because

additional acres would be available for development. Two operations would be expected to add nearly 150 direct jobs. With the indirect employment the total mining related increase in employment would approach 300 jobs under this alternative. Construction employment would increase related to the residential and business construction. There is no specific plan for this development at this time therefore it is assumed that it would occur gradually over a ten to fifteen year period and that the direct jobs would not exceed 100 in any given year. Indirect construction employment would likely add nearly another 100 jobs. These jobs would bring Sandoval County's exchange related employment increase to just over 2 percent of the County's 1998 non-farm wage and salary employment.

No Action Alternative— This Alternative, in the short-term, would maintain the ecological sites on approximately 23,000 acres of public lands included as and near the Selected Lands. In the long-term 2,000 to 3,000 acres of this land would be mined for sand and gravel creating ecological site disturbance. These acres would be reclaimed and returned to similar or more desirable ecological conditions. All of these acres would be available for general public use except during the mining and reclamation periods. Current habitat would be maintained on this land except during the mining and reclamation periods.

The ecological site condition on the Offered Lands would most likely remain unchanged. This decision would remain in control of the private land owner.

A major water use associated with the selected land area under the No Action Alternative would result from sand and gravel mining. The action would likely result in at least two mining operations. Based on data from one of the existing nearby operations it is estimated that the proposed operation would use approximately 10 acre feet of water per year. The total water use for sand and gravel mining between

Bernalillo and the Selected Land area is estimated not to exceed 30 acre feet per year. We do not have the data to estimate all water uses.

Social impacts would not change under this alternative. Economic impacts would be similar to and nearly equal to the cumulative mining impacts show for alternative B. These jobs would bring Sandoval County's mining related employment to approximately 1.3 percent of the County's 1998 non-farm wage and salary employment by place of work.

The Pueblos would continue to have shared access to the 16,836 acres of the Selected Lands.

Environmental Justice

Since two exchanges are being considered and one additional alternative needs to be considered (the NEPA Alternative), the cumulative effects would be the exclusion of public access to a total of approximately 16,836 acres of land in the currently proposed exchanges. Approximately 18,000 acres are being acquired by the Santo Domingo through a legislative global settlement associated with the Tent Rocks area, bringing the total acreage from which the public access would be excluded to approximately 35,000 acres. The Pueblo people would have an additional 35,000 acres on which they control surface use, and, therefore, they would have increased opportunities to carry on their traditional cultural practices.

The Santo Domingo and San Felipe Pueblo people are a minority (in New Mexico) and low income. The proposed alternative would have a positive affect as related to Environmental Justice. They will be in control of an additional 35,000 acres of land used for traditional cultural practices, and they will also have additional jobs and economic resources. There has been consistent consultation with the Pueblo's regarding this proposed land exchanges. Impacts to the Pueblos are expected to be positive for them.

CHAPTER 5

CONSULTATION AND COORDINATION

INTRODUCTION

This chapter describes the consultation and coordination activities the BLM has carried out while preparing this EIS. Public comments on the draft and BLM responses to them will be included in this chapter of the Final EIS.

Consultation and coordination have occurred in a variety of ways throughout the EIS process. Both formal and informal efforts have been made to involve the public, other Federal agencies, American Indian (Pueblo) tribal groups, and State and local governments. More detailed documentation of this effort is on file at BLM's Albuquerque Field Office, as is a complete list of all those contacted.

CONSULTATION REGARDING WILDLIFE

The BLM must consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act of 1973 (see Appendix D) before any agency project is initiated that may affect any federally listed, threatened, endangered and other special status species or its habitat. This proposed land exchange is considered a major Federal action, so the BLM initiated informal consultation with the FWS.

The Biological Assessment for this EIS (see Appendix D) found that the Proposed Action Alternative would have "No Effect" on all listed, proposed and candidate species due to the lack of appropriate habitat to support any of the species within the affected area. Because a finding of "No Effect" was identified for all species involved, no formal concurrence on the determinations was requested from the FWS.

PERSONS AND AGENCIES CONSULTED (PUBLIC PARTICIPATION)

Public participation in this EIS is a dynamic process that continues throughout the EIS process. In addition to formal public participation, informal contact occurs frequently with public land users and interested parties. All applicable public participation is documented and analyzed in the EIS process and kept on file in the field office.

Public involvement is essential to the success of the EIS; although public input is always welcome, BLM provided these specific opportunities for public comment beginning with background taken from the

Ball Ranch Exchange Environmental Assessment (EA, Sept., 1998, BLM.):

A Notice of Exchange Proposal (NOEP) was published in the *Albuquerque Journal* and *The Santa Fe New Mexican* for four consecutive weeks beginning on April 30, 1996. This publication notified the public of the proposal identified in Chapter 2 under Proposed Action Considered but Dropped. A Notice of Decision was also published from February 7 through March 3, 1997. An amended Notice of Decision was published on April 29, through May 20, 1998. This notice was withdrawn and a Notice of Exchange Proposal was published on July 20 and 27 and August 3 and 10, 1998. The EA was published in September 1998.

To begin the EIS process, letters were sent to interested parties on Nov. 4, 1999, which informed them that BLM was considering two new land exchange proposals involving the San Felipe and Santo Domingo Pueblos (which superseded the original three-way proposal with the State of New Mexico included). A Notice of Exchange Proposal (NOEP)/Notice of Intent (NOI) to complete an EIS was published in the *Albuquerque Journal* (Nov. 8, 15, 22, and 29, 1999) and the *Federal Register* (Nov. 9, 1999). The scoping period ended 45 days after publication in the *Federal Register* (on or about Dec. 27, 1999).

The public was invited to either submit comments on the scoping comment sheet enclosed with their letter or to attend an open house which was held at the BLM's Albuquerque Field Office on Dec. 2, 1999 (or to do both). BLM personnel were available at the open house to answer pertinent, specific questions and detailed maps were available there for review of the proposed land exchange. (The scoping process also included a news release about the proposed exchange.)

Individuals and organizations consulted during the exchange process include those in Table 5-1. The BLM staff members who prepared this EIS are listed in Table 5-2. Correspondence letters received on public notices (as of Jan. 5, 2000, are listed on the Index following Table 5-2.

The Santo Domingo Pueblo Draft EIS was released to the public in November 2000. An additional amended notice was published in the local newspapers in January 2002 in order to allow the public an opportunity to comment on more specifically identified Offered Lands.

TABLE 5-1
INDIVIDUALS AND ORGANIZATIONS CONSULTED

Organization	Specialists
Santo Domingo Pueblo	Former Governor Ernest Lovato, Former Governor Tony Tortalita, Governor Ramon C. Garcia Tribal Administrator, Bennie Atencio Members of the Tribal Council & Lands Committee Richard Hughes, Attorney
State Land Office	Olivia Ximenes, Jens W. Deichmann
New Mexico Historic Preservation Division	Elizabeth Oster, Lynn Sebastian, Jan Biela
U.S. Fish and Wildlife Service	Anne Cully
New Mexico Department of Game and Fish	Bill Montoya
New Mexico Highway Department	Paul Martinez, Mike Pope
Public Service Company of New Mexico	Bill Halpin, Scott Berger, Dave Kirkland
The Nature Conservancy	Bill Waldman
The Trust for Public Land	Deborah Love, Peter Ives

See Mailing List (Appendix G) for rights-of-way holders, landowners, interested Federal, State and local agencies, and individuals who expressed an interest in receiving information about this proposed exchange.

TABLE 5-2
LIST OF PREPARERS

Debby Lucero, Project Coordinator
 Dan Armstrong, Rangeland Management Specialist
 Kent Hamilton, Community Planner/EA Coordinator
 M'Lee Beazley, Desk top Publishing/Printing Specialist
 John Bristol, Outdoor Recreation Planner
 Steve Fischer, Watershed Team Lead
 Randy Legler, Biologist
 Brian Lloyd, Physical Scientist
 John Roney, Archeologist
 Anna Salas, Support Service Specialist
 David Sitzler, Mining Engineer
 Jerry Wall, Soils Scientist
 Linda Talley-Branch, Contract Writer/Editor

TABLE 5-3
INDEX OF COMMENTS
(Santo Domingo Land Exchange
Comments Received During Public Scoping)

Date of Correspondence	Date Received by BLM	Name/Title of Correspondent	Organization Represented
November 17, 1999	November 17, 1999	Rob Roberts	PNM - Gas & Electric Service
November 21, 1999	November 24, 1999	Frances Newsom	Landowner
November 26, 1999	November 26, 1999	K. Lynn Berry	NM State Hwy & Transportation Department
November 26, 1999	November 26, 1999	Pat D. Montoya	Heirs of La Majada Grant
December 2, 1999	December 2, 1999	Michelle Gallegos	Plains Electric G&T
December 6, 1999	December 8, 1999	Paul P. Martinez	NM State Hwy & Transportation Department
December 8, 1999	December 10, 1999	William R. Waldman	The Nature Conservancy of NM
December 21, 1999	December 27, 1999	D.N. (Dave) Daupert	Equilon Pipeline Co.
December 21, 1999	December 29, 1999	Phillip Chappell	Recreation User
December 21, 1999	December 21, 1999	Cecil Carnes, Jr.	Landowner
December 28, 1999	December 27, 1999	John F. McCarthy, Jr.	Attorney for Mr. & Mrs. Edmund Ball
December 28, 1999	December 28, 1999	Alfred L. Baca	Landowner
December 29, 1999	December 30, 1999	Commissioner Ray Powell	NM State Land Office
December 30, 1999	December 30, 1999	John P. Salazar	Attorney representing Diamond Tail Ranch
December 30, 1999	December 30, 1999	Carol M. Parker	Landowner in Placitas
January 4, 2000	January 4, 2000	Stephen L. McDowell	Public Land User
September 21, 2000	September 22, 2000	John P. Salazar	Attorney representing Diamond Tail Ranch
September 27, 2000	September 28, 2000	John P. Salazar	Attorney representing Diamond Tail Ranch

BLANK

PAGE



01 JAN 18 2001 10:28

THE NATURE CONSERVANCY OF NEW MEXICO

212 E. Marcy Street • Suite 200 • Santa Fe, NM 87501 • (505) 988-3867 • Fax (505) 988-4095

January 15, 2001

Edwin Singleton
Albuquerque Field Manager
Bureau of Land Management
Albuquerque Field Office
435 Montano Road, N.E.
Albuquerque, New Mexico 87107

Re: Draft Environmental Impact Statement of November 2000 for the proposed Santo Domingo Pueblo/Bureau of Land Management land exchange

Dear Mr. Singleton,

I have reviewed the draft Environmental Impact Statement (EIS) of November 2000 for the proposed Santo Domingo Pueblo/Bureau of Land Management land exchange, and would like to respond on behalf of The Nature Conservancy of New Mexico.

My understanding is that the proposal under consideration would involve a land exchange between the BLM and the Santo Domingo Pueblo in which: (1) 7,376 acres of BLM surface and subsurface land would be transferred to the Pueblo, subject to a conservation easement held by the federal government and managed by the Bureau of Indian Affairs; and (2) the Pueblo would transfer to the BLM lands of equal value, yet to be acquired by the Pueblo, located elsewhere in New Mexico. The latter lands would be within BLM high priority acquisition areas and would ultimately be protected through designation as Areas of Critical Environmental, Wilderness Study Area, or other such conservation status. The federally-owned conservation easement would cover all but 1,300 acres of the transferred land. On these 1,300 acres, both subsurface and surface rights would be transferred to the Pueblo. This will allow the Pueblo to develop the sand and gravel found within this limited area.

The Nature Conservancy of New Mexico is a nonprofit membership organization whose mission is to preserve the plants and animals that represent the diversity of life on Earth by protecting the land and water they need to survive. We have been conserving biologically important lands and waters in New Mexico since the early 1970s. We have nominated and provided scientific documentation for the designation of many New Mexico sites as BLM Areas of Critical Environmental Concern, including the Ball Ranch ACEC. We have worked for years with the BLM to consolidate its holdings across New Mexico. We are pleased to have played a role —



International Home Office • 4245 N. Fairfax Drive, Arlington, VA 22204 • Recycled Paper

Response I-A - BLM's high priority acquisition areas have been identified as having resource values that would support the values BLM is managing for in adjoining lands. Frequently these are Areas of Critical Environmental Concerns (ACECs) or Wilderness Study Areas (WSAs). However, the areas could be managed for recreational or other special values. These uses may not always be considered conservation uses but they would support BLM uses on adjoining lands.

38

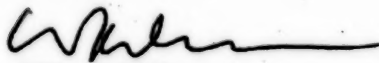
primarily scientific one — in helping the BLM protect these important conservation areas, and we hope to carry on this collaborative and productive relationship with the BLM far into the future.

Our principal concerns with the proposed exchange in the various forms it has taken over the past few years have to do with the exchange area's conservation value as habitat for rare plants and as a large, mostly unfragmented natural landscape. (Please see a copy of my letter of August 18, 1998, enclosed.) The Ball Ranch ACEC was established to protect populations of these plants (Santa Fe milk-vetch, Galisteo sand verbena and grama grass cactus). We believe it is critically important that this ACEC be managed not in isolation, but rather as part of a larger landscape, a continuous block of habitat that is unfragmented by different management regimes or intensive residential or commercial development. Moreover, we hold that BLM's management of the ACEC would be best directed at conserving the plant populations and ecological interactions for which it was established.

The draft EIS adequately addresses many of our concerns about the impact of the land exchange on the ecological integrity of the site. The Nature Conservancy therefore supports the BLM's Proposed Action Alternative (Alternative A). Retention of the Ball Ranch ACEC block by the BLM would allow for careful management by the agency for the ACEC's irreplaceable biological values. And the federally-owned conservation easement (to be managed by the Bureau of Indian Affairs) would adequately protect many of the conservation values found on the lands that are to be transferred out of federal ownership. We urge the BLM, as it sorts out the issues and determines the final details of the land exchange, to protect the biological diversity and open spaces of this singular natural landscape.

Thank you for the opportunity to comment on the Santo Domingo Pueblo/Bureau of Land Management land exchange proposal. If you have any questions about our position with respect to the exchange, please do not hesitate to call me at 505/988-1542, extension 213.

Sincerely,



William R. Waldman
State Director and Vice President

enclosure



THE NATURE CONSERVANCY OF NEW MEXICO

212 E. Marcy Street • Suite 200 • Santa Fe, NM 87501 • (505) 988-3867 • Fax (505) 988-4095

August 18, 1998

Dobby Luomo
BLM Albuquerque Field Office
435 Mountain N.E.
Albuquerque, New Mexico
87107

Re: Proposed Ball Ranch land exchange

Dear Mr. Luomo,

Thank you for informing us that the Bureau of Land Management is considering a new land exchange proposal in the Ball Ranch area. We would like to provide a few comments in response to your letter dated July 15, 1998. Our understanding is that the proposal under consideration would involve a three-way land exchange: (1) transfer of 18,295 acres of federal land to the Pueblo of San Felipe and the Pueblo of Santo Domingo; (2) transfer of yet-to-be-identified lands by the Pueblos to the BLM, and subsequent transfer of these lands to the New Mexico State Land Office; and (3) transfer of certain State lands to the BLM.

The Nature Conservancy of New Mexico is a nonprofit membership organization whose mission is to preserve the plants and animals that represent the diversity of life on Earth by protecting the land and water they need to survive. We have been conserving biologically important lands and waters in New Mexico since the early 1970s. We have nominated and provided scientific documentation for the designation of many New Mexico sites as BLM Areas of Critical Environmental Concern, including the Ball Ranch ACEC. We have worked for years with the BLM to consolidate its holdings across New Mexico, and are currently negotiating such a land transaction for the Sabinoso site in San Miguel County. We are pleased to have played a role — primarily a scientific one — in helping the BLM protect these important conservation areas. We hope to carry on this collaborative and productive relationship with the BLM far into the future.

The land included in the proposed Ball Ranch exchange is geologically unusual, containing outcrops of Todilto Limestone, a rock type found in few other places in New Mexico. The outcrops on the Ball Ranch provide habitat for two plant species that are as

The
Nature
Conservancy

limited in distribution as the Todilto Limestone itself — Galisteo sand verbena (*Abronia bigelovii*) and Santa Fe milk-vetch (*Astragalus fensholtii*) — though only Santa Fe milk-vetch has been located on the proposed exchange land to date. The ranch supports a third species (grama grass cactus, *Pediocactus papyracanthus*) that is more widely distributed than the first two, but suffers from habitat degradation virtually wherever it occurs. Together with other, more common, plants on the ranch, they form an unusual plant community that is perhaps more amenable to conservation management here than anywhere else in New Mexico.

In mid-1997, a team of more than 90 expert scientists and land managers from New Mexico and Arizona convened specifically for the purpose of identifying critical plant and wildlife conservation areas in the Arizona-New Mexico Mountains Ecoregion. The area that the BLM has proposed for disposal, which the experts named the San Felipe-Todilto Limestone site, is one of 52 such sites whose conservation is essential to survival of the native biological diversity of the ecoregion.

Fortunately, the BLM has already designated a portion of the Ball Ranch as an Area of Critical Environmental Concern. Moreover, The Nature Conservancy retains a conservation easement over more than 11,000 acres of deeded land adjacent to the exchange lands identified in your letter. The Ball Ranch ACEC, if appropriately managed, will protect a portion of the San Felipe-Todilto Limestone site and the plant populations it contains. In the exchange proposal, the BLM would retain ownership and management of the Ball Ranch ACEC, together with several adjoining sections of land that could serve as an ecological buffer for the plant populations of concern. We strongly support retention of this land, and encourage the BLM to manage the land surrounding the ACEC as a buffer zone.

Unfortunately, the proposed exchange would result in transfer of the balance of the site out of federal ownership and management. Our recent surveys have determined that the land identified for disposal is important to the protection of the San Felipe-Todilto Limestone site, as is the previously designated ACEC. We feel that it is critically important that the ACEC be managed not in isolation, but rather as part of a larger landscape, a continuous block of habitat that is unfragmented by different management regimes or intensive residential or commercial development. Single ownership can simplify and improve management of large blocks of undeveloped land — especially land that provides habitat for species and natural communities whose survival depends on careful, restorative management, as do those of the Ball Ranch.

For these reasons, we oppose transfer of this land out of federal ownership and management. We believe that the land in question should be managed primarily for its biological values, and that the BLM already has the mechanisms and resources in place for doing so. An ACEC has already been established within the core of the site, and the landscape within which the ACEC is nested is currently managed by the same agency.

We urge the BLM to reconsider the proposed land exchange in the context of the Ball Ranch's recognized biological significance. Moreover, we urge the agency to consider formally expanding the boundaries of the Ball Ranch ACEC so that it encompasses an area large enough to allow for full protection and restoration of the San Felipe-Todilto Limestone site.

Thank you for the opportunity to comment on the Ball Ranch land exchange proposal. If you have any questions about the biological information we have provided in this letter or about our position with respect to the exchange, please do not hesitate to call me at 505/988-1542, extension 213.

Sincerely,

William R. Waldman
State Director and Vice President

January 11, 2001

Edwin Singleton, Field Manager ^{SLB}
 Bureau of Land Management
 Albuquerque Field Office
 435 Montano Road NE
 Albuquerque, NM 87107

Dear Mr. Singleton,

Having read the Santo Domingo ~~Pueblo~~ BLM Proposed Land Exchange we would like to comment. We are landowners in one the areas of possible acquisition.

2-A In order to prevent misunderstandings we would like to see map 4-D corrected to reflect the private lands that exist in the Rio Grande corridor. The map as it appears now implies that the corridor is owned by the BLM, which is not true.

Additionally we feel you have essentially omitted 1/2 of the exchange. The EIS addresses the property that Santa Domingo will receive and the EIS covers all the issues associated with this part of the exchange. What it does not address is the other 1/2 of the exchange. It only identifies that land that will be transferred by the Pueblo to BLM as "something of equal value in Rio Puerco or Taos RMP's". We want to know the exact lands identified for acquisition in the Rio Grande Corridor and Embudo Valley (Map 4-D).

Although the private lands are not specifically indicated on Map 4-D of the Santa Domingo Exchange EIS we are aware that that all the private lands along the corridor were listed for possible acquisition in the Rio Grande Corridor Final Plan January 2000. In fact several landowners have already been approached to sell their land. Would you please spell out specifically the parcels most desired and what criteria will be used for choosing which land will be acquired.

2-B The majority of the corridor land is prime river bottom agricultural land. Rio Arriba has clearly established it's intention to preserve the land that has been used for agriculture for centuries as evidenced by the new ordinance (Agricultural Protection and Enhancement Ordinance 2000, Appendix Q of the Rio Arriba County Subdivision Land Regulations). This is land that should not be used for public access and recreation.

2-C We must object to Alternative A & B until we know all the exact lands to be exchanged. Under this current draft we do not know the whole picture and are not being consulted or represented in this exchange. The draft EIS does nothing to address the impacts--sociological, cultural and economic to our El Valle de Embudo and Dixon communities

Response 2-A- The map has been changed and should be more easily read.

Response 2-B- We have reviewed Appendix Q. We do not believe the Federal acquisition of land for uses currently proposed through the planning is contrary to the intent of the Counties Ordinance. However, this is not a critical question now since the "offered" lands have been identified and they are in Santa Fe and Taos Counties.

Response 2-C- The "offered" lands have been identified in Santa Fe and Taos Counties. Lands identified for acquisition through the Rio Grande Corridor Plan were not identified as having measurable impacts on the identified communities.

In general we ~~can not~~ support this policy of "exchanging" lands without full disclosure of the lands being exchanged.

Thank you for your attention to our position.

Gaywyn Cooper	<i>Gaywyn Cooper</i>
Ed Cooper	
Ron Rinker	<i>Ron Rinker</i>
Jay Geiger	<i>Jay Geiger</i>
Stan Soldnicki	<i>Stan Soldnicki</i>
Beverly Pappas	<i>Beverly Pappas</i>
Judy Buffalo	<i>Judy Buffalo</i>
Robert Stout	<i>Rob Stout</i>

**WHITE,
KOCH, KELLY
&
McCARTHY**
A Professional Association

01 JAN 16 PM 3:12
ALBUQUERQUE, NM

Attorneys and Counselors at Law
John F. McCarthy, Jr.
Benjamin Phillips
David P. Cunningham
Albert F. Gustafson
Jared Clow
Kevin P. Reilly
C.W.M. Thompson, Jr.
M. Kevin Kilgus
Sandra J. Smith
Aron J. Wolf
Mary E. Wells
Robert Dwyer
John M. Hilly
John A. Wittenberger
Thomas C. Oden
Daniel Conant
Paul L. Blum

January 11, 2001

Mr. Edwin J. Singleton
Field Manager
Bureau of Land Management
Albuquerque Field Office
435 Montano Road NE
Albuquerque, NM 87107-4935

Re: Environmental Impact Statement
Proposed Land Exchange
BLM/Santo Domingo Pueblo

Dear Mr. Singleton:

On behalf of the Estate of Edmund F. Ball, the following comments on the draft Environmental Impact Statement are submitted:

- 3-A 1. The Ball Estate is the owner of the north half of Section 1, T13N, R7E, a portion of which is within the area proposed for exchange with Santo Domingo Pueblo. This tract is unfenced and, since it is used for cattle grazing, it is not economical to fence the property. The Ball Estate is interested in exchanging this tract for other lands that adjoin other Ball properties.
- 3-B 2. The Ball Estate is the owner of a tract within the Ortiz Mine Grant that adjoins BLM properties proposed for exchange with Santo Domingo. This tract adjoins Sections 24 and 31, T14N, R7E, and Sections 6 and 13, T13N R7E. The common line between the BLM properties and the Ball Ranch is unfenced, which will create problems in the future for both the Pueblo and the private landowner, both of whom would presumably continue to use the properties for grazing cattle.
- 3-C 3. My client has made improvements on the BLM property, such as fencing, water troughs, etc., which we understand are being appraised by the BLM, and the lessee will be compensated for the value thereof.

433 Paseo de Peralta
Santa Fe, NM 87501

Post Office Box 787
Santa Fe, NM 87504-0787
e-mail jfmc@nm.net

Telephone (505) 989-4374
Fax No. (505) 989-0350; 984-9631

Response 3-A- This would have to be handled through a separate exchange proposal, otherwise the matter will require an agreement between the Ball Estate and the Santo Domingo Pueblo.

Response 3-B- This fencing would require an agreement between the Ball Ranch and the Santo Domingo Pueblo.

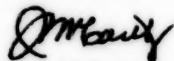
Response 3-C- The improvements have been identified and a valuation of the improvements has been completed. The Ball Estate will be compensated for these improvements on Federal land.

Mr. Edwin J. Singleton
January 11, 2001
Page 2

3-D 4. We have previously identified the need for access across Section 18, T14N, R7E, Section 31, T14N, R7E, and Section 6, T13N, R7E. If acceptable access cannot be established between my client and Santo Domingo Pueblo, we expect the BLM to issue a right-of-way before completing the exchange and to make the Patent subject to the right-of-way.

We have no opposition to the proposed exchange with the understanding that the Conservation Easement will be imposed upon the property so identified, and that the terms and conditions thereof will be enforced by either the BLM or the Bureau of Indian Affairs. We request that the foregoing itemized matters be addressed by the BLM in making its final decision.

Very truly yours,



John F. McCarthy, Jr.

cc: Douglas J. Foy
Bill Waldman

JFM:lg

3312-018

Response 3-D-Historical use access would be provided for.

NEW MEXICO NATURAL HISTORY INSTITUTE

A nonprofit corporation

1700 Camino Corral

Santa Fe, New Mexico 87505-2000

BLM

16 PM 3:09

BY ALBUQUERQUE, N.M.

13 January 2001

Ed Singleton, Field Manager
Bureau of Land Management
435 Montaflo Road, NE
Albuquerque, NM 87107

comments on Santa Domingo
land exchange DEIS

Dear Mr. Singleton:

Thank you for opportunity to comment on your November DEIS "Santa Domingo Pueblo/ Bureau of Land Management Proposed Land Exchange." We won't object to the exchange. However, we here present for its cautionary value our reasoning about two areas of concern.

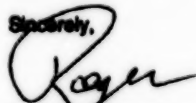
In general we like exchanges that block up important BLM lands, and this fits. However, not knowing just what lands will be offered puts a definite limit to our enthusiasm. One difficulty is that "equal value" is based on market values whereas our interest is in natural values, especially those related to biological diversity; there may be no match between these different standards. A second difficulty, based on recent nationwide experience, is that we don't trust BLM even to obtain equal market values.

Our second area of concern is that we don't know the selected lands as well as we'd like. We think that the DEIS is right and that the only special biological value present is petrified wood. We're willing to sacrifice those fossils for what's to be gained by an exchange. But we regret the seasonal timing of the DEIS which has made it difficult for us to look carefully at the land.

4-A We understand that other land exchanges in the immediate area are in the works. They will probably involve higher "special biological values." Please write DEISs that look very carefully at those values and evaluate them in relation to biological features that will not be exchanged, so that we are assured that we lose nothing unique. We will be looking more closely at the selected lands in those exchanges.

Incidentally, the Rio Grande Chapter of the Sierra Club has also considered the DEIS but won't be sending a comment. I (personally, not as a NMNHI employee) was asked to draft comments for the Club. We ran afoul of a temporary national Club policy that makes it difficult to say anything favorable about a BLM land exchange. I think that the Chapter's position would not be far from that expressed above; at least the Chapter won't object to your decision.

Sincerely,



Roger S. Peterson
Secretary

Response 4- Comment Acknowledged

EL BOSQUE PRESERVATION ACTION COMMITTEE
POST OFFICE BOX 25 • EMBUDO, NM 87531 • 505/579-4214

January 12, 2001

01 JAN 16 PM 3: 03

01: ALL INFORMATION

Mr. Edwin Singleton
 Albuquerque Field Manager
 Bureau of Land Management
 435 Montano Road
 Albuquerque, NM 87107

Dear Mr. Singleton:

Members of El Bosque Preservation Action Committee are residents and landowners of the lower Rio Grande gorge from the Taos County line to the Velarde diversion dam - the area that has been slated for land acquisition in the Final Rio Grande Corridor Plan 2000. We would like to make the following comments on the Santo Domingo Pueblo/BLM Proposed Land Exchange.

5-A In the Santo Domingo Draft EIS MAP 4-D "Land Identified for Acquisition" there is no clear indication of the private lands that exist in the Rio Grande corridor and in the Embudo Valley. It appears that all the land in the corridor is BLM owned. This map should be corrected to accurately reflect private land ownership in the river corridor and in the whole Embudo Valley.

Although the private lands are not specified on Map 4-D of the Santo Domingo/BLM Land Exchange Draft they are listed in the Rio Grande Corridor Final Plan of January 2000 (RGCFP2000) prepared by the Taos Field Office of the BLM (See RGCFP2000, page 3-9 to 3-13). In fact some landowners from this table have already been contacted for purchase of their land. Consequently one half of the exchange has been omitted from the draft. The EIS addresses the property that Santo Domingo will receive. It identifies the land that will be transferred by the Pueblo to the BLM as something of equal value in Rio Puerco or Taos RMP's, but it fails to list the lands BLM has already specified for acquisition. We request that you "put a fix" on this acquisition by including in the EIS the land slated for acquisition, as specified in Chapter 3 of the RGCFP2000.

5-B The majority of the corridor land in this section of the river is prime river bottom agricultural land that has been farmed for centuries. Rio Arriba County, the county in which we live and farm, has been in the forefront in its efforts to preserve these lands as evidenced by the newly enacted "Agricultural Protection and Enhancement Ordinance 2000, Appendix Q, of the Rio Arriba County Subdivision Land Regulations". Therefore, we oppose any land sales purchases that would compromise the preservation of agricultural lands or negatively affect the tax base of this economically disadvantaged county.

5-C Under the current draft the "whole picture" of the exchange and its ramifications are omitted from the draft. Landowners in the Embudo Valley were neither notified, consulted or represented in this "exchange". The draft, which was not distributed in our area and only came to our attention through a concerned third party, does not consider the sociological, cultural, and economic impact to our communities.

Response 5-A- See response 2-A. Map has been improved.

Response 5-B- The offered lands have now been identified. Approximately 175 acres are "offered" in Taos County. These are not farm lands and the difference between the taxes and the payments in lieu of taxes will be small.

Response 5-C- The "offered" lands have been identified. Most of it is in Santa Fe County but approximately 175 acres of Taos County lands are included. These Taos County lands were identified for acquisition and analyzed in the Rio Grande River Corridor Plan and EIS. No measurable impacts were identified resulting from the proposed acquisition in that EIS.

EL BOSQUE PRESERVATION ACTION COMMITTEE
POST OFFICE BOX 28 • EMBUDO, NM 87531 • 505/579-4214

In general we cannot support this policy of "exchange" without full disclosure of the specific lands in the exchange and an opportunity for people in the affected communities to comment. We would appreciate your response to these concerns, and mailings of all future land exchanges that will affect our community.

Sincerely,

Key Weiner
Key Weiner, for EBPAC

COMMENT LETTER 6

12 January, 2001

01 JAN 15 PM 3:02

RE ALBUQUERQUE, NM

Mr. Edwin Singleton
Field Manager
Bureau of Land Management
435 Montano Road
Albuquerque, NM 87107

Dear Mr. Singleton:

This letter is to comment on the proposed Santo Domingo Pueblo/BLM Land Exchange. As a twenty-five year resident of Embudo I am opposed to any BLM purchase of land in the Dixon/Embudo area for the following reasons.

6-A 1) Property would be removed from the tax base, which is already small due to the amount of Federal lands owned in the state.

6-B 2) Agricultural land would be removed from production and water rights would be lost, with an overall negative effect on the health of the local acequias.

3) There is already a scarcity of land available for residential and agricultural use in this area as it is surrounded by BLM and Forest Service lands.

6-C 4) The social and cultural fabric of this very cohesive area would be severely damaged by the loss of residents and the trend toward using this area for recreation rather than agriculture and residence.

Dixon/Embudo is an old, established community. Just because we have the fortune - or perhaps the misfortune - to have beautiful surroundings, we should not have to make way for the recreational pleasures of people who have no connection to the community

Sincerely,



Lou Malchie

RESPONSE

Response 6-A- BLM would be acquiring land by exchange therefore while the tax base may decrease for one county the in-lieu-of-tax payment would increase for that or some other county. The change in receipts would be small. The 175 acres of "offered" land in Taos County previously were taxed as grazing lands and would become part of the entitlement lands for in-lieu-of-tax calculations.

Response 6-B- The Taos County land "offered" were identified for acquisition and analyzed through the Rio Grande Corridor Plan/EIS (September 2000). This acquisition was not identified as having measurable impacts on water rights, acequias or the communities. It was previously grazing lands.

Response 6-C- The Taos County land "offered" in this exchange had been identified for acquisition in the Rio Grande Corridor Plan/EIS measurable impacts of this acquisition were not identified through that analysis.

ROTHSTEIN, DONATELLI, HUGHES, DAHLSTROM, SCHÖENBURG & ENFIELD, LLP

Attorneys at Law

RICHARD W. HUGHES

TEL: 505.988.8004

FAX: 505.982.0307

January 12, 2001

01 JAN 15 PM 3: 08

011 ALBUQUERQUE, NM

Mr. Edwin J. Singleton, Field Manager
Albuquerque Field Office
Bureau of Land Management
435 Montano Road, N.E.
Albuquerque, New Mexico 87107

Re: Santo Domingo Land Exchange EIS

Dear Mr. Singleton:

I am providing you, herewith, the comments of the Pueblo of Santo Domingo on the draft Environmental Impact Statement concerning the proposed land exchange between the bureau and the Pueblo of Santo Domingo for lands within the so called "Ball Ranch." We appreciate the opportunity to comment on the draft E.I.S., and also we appreciate the work of your office in preparing the E.I.S. and otherwise processing the exchange.

Our comments on the draft E.I.S. are as follows:

7-A

1. In the Summary Comparison of Alternatives, especially on page S-3, you give certain estimated values of sand and gravel projected to be developed, based upon a current price of \$1.10 per cubic yard. It is our understanding that at the present time, there is not yet a final appraisal of the minerals underlying the lands to be exchanged to Santo Domingo. The \$1.10 per cubic yard price is one that, as far as we know, has no basis in fact, and thus gives a distorted impression of values. Moreover, an appraisal that was performed on this very same property just over one year ago, commissioned by the BLM, concluded that an appropriate royalty rate \$0.85 per cubic yard. While we believe that even that figure is high (BLM approved a sand and gravel lease for a property much closer to Albuquerque in late 1998 for a royalty of \$0.67 per ton), nothing in that appraisal supported the \$1.10 figure.

Additionally, the gross figures contained in the table appear to be derived by simply adding the value of material projected to be mined, at the \$1.10 per cubic yard figure, year by year for some projected period, without discounting those numbers for present value. This, again, presents a wildly distorted impression of the value of the property being exchanged. Assuming that the forthcoming mineral appraisal will generate a more reasonable figure for the value of the minerals, having these numbers in the draft E.I.S. would lead anyone who might question this exchange to challenge it by comparing these numbers to the appraisal figures. We believe it is very much in error to set out projected mineral values in the E.I.S., unless and until a final appraisal has been arrived at, and then the figures should only be those consistent with the final approved appraisal.

Response 7-A- The \$ 1. 10 is based on current market value and we have stated that based on that value the product available, either to be developed or not to be developed is a specific amount. You are correct we did not try to calculate a stream of income over a period of years and bring it to a net present value. Our figures are an estimate of product value at present price. Obviously, price will change as will demand and some other factors which complicate the calculation of net present value and would complicate reaching an agreement on what the mineral material production values would be over a given period.

SANTA FE • PHOENIX • ALBUQUERQUE

1215 PASEO DE PERALTA • PO BOX 8180 • SANTA FE, NEW MEXICO 87504-8180

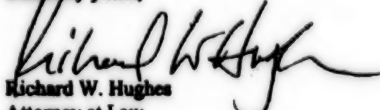
Mr. Ed Singleton
January 12, 2001
Page 2

7-B

2. On page 4-4, under the heading "Impacts to Land Usage (Selected Lands)," the third paragraph contains the statement, "The two powerline rights-of-way currently within the existing designated corridor will be reserved in the patent and would continue to be managed by the BLM." This statement appears to be inconsistent with the description of the proposed action on page 2-1, which states, in the final sentence of the sixth paragraph, that the right of way corridor "would be included in the transfer to the Santo Domingo Pueblo." We are aware of no legitimate reason for reserving the two PNM powerline rights-of-way to the United States. As a practical matter, and as I am sure you are aware, the BLM conducts no actual "management" of a right-of-way, once it is granted, and the grantee essentially undertakes full responsibility to maintain its line and the conditions of the right-of-way corridor. Numerous major powerline easements cross Indian lands in New Mexico at the present time, including Santo Domingo land, and we are unaware of any adverse effects that have been suffered by public utilities by virtue of having their lines cross tribal lands. For the United States to reserve the easement of these two lines, but not others, would cause jurisdictional complexities that would be highly disadvantageous to the Pueblo. Particularly as a result of the Supreme Court decision in *Strate v. A-1 Contractors*, 520 U.S. 438 (1997), it has become extremely important that rights-of-way and other grants of interests in Indian lands not be burdened with jurisdictional ambiguity. To do as BLM suggests it intends to do in this portion of paragraph 4.4, however, would raise a serious question as to what interest the Pueblo is receiving in the strip of land affected by the right-of-way reserved to the United States. This would be intolerable, and would substantially diminish the value of the selected lands to the Pueblo. The Pueblo does not accept or agree to these terms, and urgently requests that BLM reconsider this aspect of the intended action, if in fact this is intended.

That concludes our comments. Otherwise, we appreciate the careful and thorough work that has gone into the draft E.I.S. and look forward to working with you in the future in order to finalize this exchange.

Sincerely yours,


Richard W. Hughes
Attorney at Law

RWH/cm

cc: Hon. Ramon Garcia, Governor
Benny Atencio, Tribal Secretary
Members of the Land Committee

Response 7-B- The corridor would be transferred and negotiations on the status of the PNM rights-of-way are being negotiated (see Appendix I).

01 JAN 16 PM 3:06

January 12, 2001

03 ALBUQUERQUE, NM

Mr. Edwin Singleton, Field Manager
Bureau of Land Management
Albuquerque Office
435 Montano Rd.
Albuquerque, NM 87107

Dear Mr. Singleton:

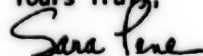
We are long-time residents of Dixon, NM who would like to comment on the proposed Santo Domingo Pueblo/BLM Land Exchange.

8-A

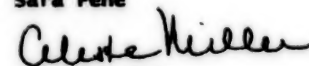
We believe that using the funds generated by this 'exchange' to purchase private lands in Dixon and Embudo would have severe detrimental effects on our area by destroying agricultural land and the ditches that support it; by diminishing the local tax base; and by diluting the culture of our fine community.

Thank you for your consideration of our feelings.

Yours Truly,



Sara Pene



Celeste Miller

Response 8-A-The Taos County land "offered" in this exchange had been identified for acquisition in the Rio Grande Corridor Plan/EIS. Measurable impacts of this acquisition were not identified through that analysis.

COMMENT LETTER 9

RESPONSE

Roger Peery

US Bureau of Land Management
Edwin Singleton
Albuquerque Field Office
435 Montano Road NE
Albuquerque, NM 87107

Re: Proposed Land Exchange between the BLM and Santo Domingo Pueblo

Dear Mr. Singleton:

Thank you taking the time to review my comments regarding the proposed land exchange between the BLM and the Santo Domingo Pueblo. My comments regarding the exchange are listed below, and presumably will also apply, at least in some instances, to the proposed land exchange between the BLM and San Felipe Pueblo. My comments refer to page numbers and headings listed in the draft Environmental Impact Statement, November 2000.

Page 1-1

NEED FOR THE PROPOSED ACTION

The need for the proposed action is unclear and ambiguous. The section specifically states "The exchange would also help reduce conflicts between public land users and private land owners, eliminate inappropriate development of private inholdings in specifically designated areas, and increase BLM's management flexibility. In addition, the Santo Domingo Pueblo would acquire lands that have been identified as having significant traditional cultural values to them."

The above statements are not explained in detail in the document, yet must be in order to prove a need for the exchange. Please provide explanations for the following:

1. What are the conflicts between public land users and private land owners?
2. What is inappropriate development of private land?
3. How is BLM's management flexibility improved?
4. When were the lands having significant cultural values identified?
5. Why is the exchange proposed solely between the BLM and the Santo Domingo Pueblo?

Response 9-A- The conflicts come when land ownership is intermingled and public land users trespass onto private lands.

Inappropriate development of private land from BLM's perspective is development on private land which is incompatible with development taking place on adjoining BLM lands. Especially if natural resource values are being destroyed or neglected.

BLM's management flexibility is improved when ownership is blocked up so that BLM does not have to develop or protect around inholdings.

Lands having significant cultural values were identified during our resource management planning.

The exchange is solely between BLM and the Santo Domingo Pueblo because the Pueblo identified lands that had special value to them and offered to acquire lands that BLM wanted to acquire to make an exchange. Procedures for exchanges are laid out in law and regulation. "bidding" is not a part of the exchange process.

74

9-A

It is easy to understand how trading the land to the Santo Domingo Pueblo will increase BLM's management flexibility because the lands will be locked off to all people except the Pueblo members, thus freeing up BLM to manage other areas. I am not sure about the cultural resources and how they are significant to the Santo Domingo Pueblo, or some other Pueblo, or some other group of people historically not associated with any nearby Pueblo. Some explanation of this situation would be helpful.

It would be beneficial to open up the exchange to others such as ranchers or conservation groups. Bidding could be conducted and ultimately the exchange could occur between the high bidder and the BLM, with restrictions being placed on future land use, rather than an arbitrarily decided exchange between the BLM and the Pueblos.

Page 2-1

ALTERNATIVE A (Proposed Action Alternative)

9-B

The next to the last paragraph on this page indicates that the BLM would acquire additional lands within Special Management Areas (SMA). Over the last 10 years, the BLM has locked off large parcels of land to public access by using the SMA, Wilderness Study Area designation. Roads have been closed and camping has been severely restricted. For example, the BLM has closed nearly all access on Mount Taylor to vehicle traffic except for a main artery road. If the BLM plans develop additional SMA areas as a result of this exchange, and lock off all, or most, road access as they have done on Mount Taylor and numerous other areas, I am against this exchange. It is better for the public to have some land that is accessible for hiking, mountain biking, hunting, and vehicular traffic than none, even if it is not as desirable to the BLM.

Page 2-2

ALTERNATIVE B (No Conservation Easement)

The above comment also applies to this section.

Page 3-2

Threatened, Endangered and Other Special Status Species (Selected and Offered Lands)

9-C

This section does not address the Rio Grande Silvery Minnow. Development of the offered lands as specified in this draft EIS will require water. Since all water pumped from the ground on existing Pueblo lands and the proposed exchange lands affects flow in the Rio Grande, what are the Pueblo's drought management plans to reduce their use in order to maintain instream flow in the Rio Grande to help maintain water for the Silvery Minnow?

Response 9-B- Areas likely to be acquired through this exchange are lands identified for acquisition in the RMP. These lands were identified because they had resource values similar to those of the SMA or WSA. The protection of the resource values is the basis for restriction of access and closure of roads. Where protection of resource values does not require these measures areas are left open for multiple use.

Response 9-C- The Pueblo has not prepared a drought management plan because the selected lands proposed to be developed in the draft EIS are approximately 10 miles east of the Rio Grande River corridor. The aquifer is a 1,000 to 2,000 foot saturated thickness underlying the area. The ground water in the area would be withdrawn from very deep well's, therefore, this is not a significant withdrawal of ground water from the aquifer. Based on this analysis the withdrawal of ground water from the aquifer on the selected lands would not create a measurable effect on the Rio Grande River corridor and would result in a "No Affect" situation for the Rio Grande silvery minnow.

BLANK

PAGE

Pages 3-10 and -11

Socio-Economic Conditions (Selected and Offered Lands)

9-D | The use of Census 2000 data would be more appropriate for this section.

Page 4-2

Threatened, Endangered and Other Special Status Species (Selected and Offered Lands)

9-E | The above comments per page 3-2 also apply to this section.

Page 4-5

Impacts to Recreation

I am disturbed by the fact that the selected lands will most probably be permanently locked off to all non-Santo Domingo members. Additionally, if access were granted, fees and availability would be arbitrary.

9-F | Regarding the offered lands, these are all in areas in which the BLM is trying to limit all access except by foot, horse, or bike. Please provide a balanced scientific explanation of the continued BLM pursuit of locking off vehicle access to public lands, with the exception of travel along a single main artery road, as this has, or will, occur in the offered lands areas.

I look forward to receiving your response to my comments.

Sincerely,



Roger Peery

cc: Senator Pete Domenici
Representative Heather Wilson

Response 9-D-When the document was prepared the data presented was the most recent data available. The tables have been updated to use the most recent figures available.

Response 9-E-If the land goes in to Pueblo ownership the Pueblo would control access to and use of the land.

Response 9-F- Lands identified for acquisition are generally associated with areas designated for the protection of special resource values. These areas are frequently closed to some uses for the protection of the high valued resources.



**NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT**
AN EQUAL OPPORTUNITY EMPLOYER

01 JAN 15 PM 2:59
P: 412-412-4121

GARY E. JOHNSON
GOVERNOR

Commission

John Brown, II
Chairman, Senate
Edward T. Roper
Vice-Chairman, Senate
Peter T. Madsen, Sr.
Secretary, Albuquerque
Sherry Galloway
Member, Farmington
Albert H. Strickland
Member, Santa Rosa
William G. Stuebgen
Member, Portland

Department

Secretary
Paul K. Rabe
General Office
P.O. Box 1140
Santa Fe, NM
87504-1140
505-427-4100

District One Office
P.O. Box 291
Gallup, NM
86801-0291
505-445-3800

District Two Office
P.O. Box 1457
Roswell, NM
88203-1457
505-424-3800

District Three Office
P.O. Box 10700
Albuquerque, NM
87100-1070
505-441-3800

District Four Office
P.O. Box 70
Las Vegas, NM
87701-0070
505-454-3800

District Five Office
P.O. Box 4127
Coronado Station
Santa Fe, NM
87505-4127
505-427-4100

District Six Office
P.O. Box 2100
Albuquerque, NM
87101-2100
505-427-4100

January 11, 2001

Mr. Edwin J. Singleton
Albuquerque Field Manager
Bureau of Land Management
435 Montano Road N.E.
Albuquerque, New Mexico
87107

Subject: Draft Environmental Impact Statement

Dear Mr. Singleton,

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the BLM and Santo Domingo Pueblo Land Exchange. We reviewed the document for the possible effects the land exchange might have on our ability to implement the recommendations generated by our ongoing connection study (CN 9183, TPM-7543 (2)) for a route between New Mexico 14 and Interstate 25. Our intent is to ensure adequate transportation corridors exist throughout the region to provide for mobility and economic growth.

Referring to the DEIS, on page 2-1, paragraph 7, no mention is made of the width of the Right Of Way to be transferred to the County for this historic highway (CR 252 A). We recommend that enough ROW be transferred not only the existing facility but also for future possible improvements to the facility. A width, such as that currently fenced along the roadway, should be adequate in most cases. Access off and onto the roadway would have to meet the requirements of the Pueblo but also those of the County or future maintainer of the facility. These comments also apply to paragraph 7 of page 2-2, and paragraph 2 of page 3-7 of the DEIS.

On page 5-3, Table 5-3, two additional documents need to be added. I have attached our correspondence dated May 2, 2000 and May 31, 2000 for your use. If I can be of any further assistance or if you have any questions please contact me at 505-427-5122.

Sincerely,

Michael Pope
Michael Pope
Project Development Engineer

CC: George Herrera
Steve Harris

Response 10-A- It has been determined that the County has a valid existing right of way. It will remain as it is.

10-A



**NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT**
AN EQUAL OPPORTUNITY EMPLOYER

GARY E. JOHNSON

Governor

Commission

John Brown, II
Chairman, Senate

Edward T. Gage
Vice-Chairman, House

Peter T. Harkin, Jr.
Secretary, Albuquerque

Henry Gutierrez
Member, Pennington

Albert H. Gonsky
Member, Santa Rosa

Shirley G. Stevens
Member, Pecos

Department

Secretary

Pat K. Kuhn

General Office

P.O. Box 1100

Santa Fe, NM

87504-1100

505-425-4100

State One Office

P.O. Box 284

Barrow, NM

87504-0284

505-425-3300

State Two Office

P.O. Box 1407

Barrow, NM

87504-1407

505-425-3300

State Three Office

P.O. Box 9100

Albuquerque, NM

87103-9100

505-424-5700

State Four Office

P.O. Box 30

Las Vegas, NM

87701-0030

505-424-5700

State Five Office

P.O. Box 4107

Coronado Station

Santa Fe, NM

87505-4107

505-425-3300

State Six Office

P.O. Box 2000

Alma, NM

87001

505-425-3300

May 31, 2000

Ms. Debby L. Lucero
Realty Specialist
U.S. Department of the Interior
Bureau of Land Management
Albuquerque Field Office
435 Montano N.E.
Albuquerque, N.M. 87107

Re: Northeast Loop Corridor Study

Dear Ms. Lucero,

Let me begin by thanking you and Mr. Singleton for taking the time to meet with me and our consultant engineer, Parsons Brinckerhoff, regarding the coordination of the BLM proposed Land Trade Study and the Department's Northeast Loop Corridor Study. I trust that the information we provided you at that meeting (reference 5/2/00 Department letter to the BLM) has been useful in your on-going land trade analysis.

I would like to update you on two of the issues we discussed at our meeting. First, the Department has written letters to each of the area Pueblo Governors requesting the opportunity to meet with them to discuss our corridor study and to listen to their concerns and comments. We hope to be meeting with the pueblos in the very near future. Second, in recognizing the likelihood of a significant number of cultural properties throughout the project area, Parsons Brinckerhoff had a follow-up meeting with Mr. John Roney of your staff. The purpose of that meeting was to share and receive information regarding the presence of pre-historic/historic cultural properties within the common areas currently being evaluated by the BLM and the Department. Based upon available ARMS records information that we have obtained and Mr. Roney's verbal input, we are not aware of any potential sites that would in themselves preclude a future transportation corridor in the general area under consideration. As our corridor study advances, we will be conducting on the ground surveys to look for additional sites that are currently unknown and thus have not been recorded. Similarly, we will be conducting a full range of engineering and environmental investigations relating to all potential alignments under consideration.

As discussed in our earlier letter, the Department has identified the existing County Road CS2A alignment and several additional properties situated along the southern and western boundaries of the San Felipe Phase I study boundary. These areas appear to have the highest potential within the BLM Phase I study area to support a possible transportation corridor at some point in the future. The properties that we have identified consist of a

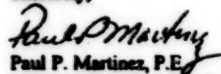
78

combination of BLM, State, and privately owned lands. The BLM owned lands that we are evaluating represent approximately 15% of the total BLM owned lands within the phase I land trade study boundary. At this point in our study we are evaluating a number of potential alignments throughout our larger study area. We will continue to refine all potential alignments as our study progresses. We fully anticipate that as more information is gathered and evaluated, we will be in a position to better define the most feasible corridor alignments within the BLM Phase I study boundaries. It is likely that some potential corridors will be eliminated from further consideration as we advance further into our study process. The end result of our study will be to identify a preferred build or no-build alternative for the Northeast Loop study area.

In our earlier meeting we discussed in general terms how best to include the current information we have provided you into your on-going land trade analysis. You and Mr. Singleton indicated that you would further explore options that would allow the BLM to complete the land trade analysis while still providing for the possibility of a future transportation corridor within the proposed land trade boundaries. As you know, the manner in which the BLM chooses to address this matter is of critical importance to the State Highway & Transportation Department. In order to avoid any possible confusion on this topic, we respectfully request that the BLM describe to us in more complete detail the manner in which you intend to proceed on this matter. We are particularly interested in better understanding the policies and procedures that you will be following as part of your decision making process.

I would like to thank you again for your cooperation thus far in coordinating our two studies. We believe that it is extremely important that we continue to closely coordinate our efforts in order to insure that both the BLM and the Department will make the best possible decisions. We will await your reply to our request for further information. As always, if you have any questions regarding this letter or if you would like to discuss the project further with us, please feel free to call me at (505) 827-5122 or you may call Carlos Padilla with Parsons Brinckerhoff at (505) 881-5357.

Sincerely,



Paul P. Martinez, P.E.
NMSHTD- Project Development Engineer

Copy: Larry Velasquez - NMSHTD
Robert Romero - NMSHTD
Steve Harris - NMSHTD Dist. 3
Craig Conley - NMSHTD
Greg Rawlings - FHWA
Carlos Padilla - Parsons Brinckerhoff



**NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT**
AN EQUAL OPPORTUNITY EMPLOYER

GARY E. JOHNSON
GOVERNOR

Commission

John B. Smith, II
Chairman, Senate
Edward T. Rigg
Vice-Chairman, House
Peter T. Martin, Jr.
Secretary, Albuquerque
Sherry Galloway
Member, Farmington
Alfred H. Sanchez
Member, Santa Fe
Edw. G. Stubbins
Member, Pueblo

Department

Secretary
Pete K. Fols
General Office
P.O. Box 1140
Santa Fe, NM
87504-1140
505-427-4100

District One Office
P.O. Box 251
Durango, NM
87001-0251
505-440-3000

District Two Office
P.O. Box 1457
Roswell, NM
88203-1457
505-424-3200

District Three Office
P.O. Box 94700
Albuquerque, NM
87109-1700
505-641-5700

District Four Office
P.O. Box 30
Las Vegas, NM
87701-0030
505-444-3000

District Five Office
P.O. Box 4127
Coronado Station
Santa Fe, NM
87505-4127
505-437-4000

District Six Office
P.O. Box 2100
Alamogordo, NM
88001
505-350-3000

May 2, 2000

Ms. Debby L. Lucero
Realty Specialist
U.S. Department Of The Interior
Bureau Of Land Management
Albuquerque Field Office
435 Montano N.E.
Albuquerque, N.M. 87107

Re: Northeast Loop Environmental Corridor Study

Dear Ms. Lucero,

This letter is in follow-up to our on-going conversations regarding the need to coordinate and exchange information on the environmental studies being conducted by your office and the Department in the area northeast of Albuquerque. As you know, the Department is currently in the "initial corridor analysis" phase of a study examining the need for a future transportation corridor that would connect Highway 14 to Interstate 25 in the area east of the Sandia Mountains. The study area under consideration is approximately bounded by the Sandia Mountains and State Road NM 165 on the west, County Road C52A on the east, Highway 14 on the south, and Interstate 25 on the north (see attached display). The proposed land exchanges with the Santo Domingo and San Felipe Pueblos that are currently being studied by the BLM are situated within the eastern-most portion of this study area.

The Department intends to complete an Environmental Assessment for the proposed project. In keeping with the Department's established procedures for corridor studies of this nature, we will follow a three phase approach to the analysis. The first phase, called the "initial corridor analysis" is currently underway. Under this phase of the study, information is gathered by the study team which is then utilized to identify all prudent and feasible alternatives to be evaluated. The second phase, called the "Detailed Evaluation of Alternatives", examines in more detail the preliminary alternatives identified as part of the initial corridor analysis. The third and final phase includes the preparation of the Environmental Assessment for the proposed project.

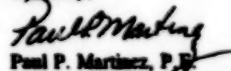
We understand that your proposed timetable for completing analysis of the Santo Domingo and San Felipe-Phase I exchange areas is somewhat ahead of the time frame that will be required for the Department to fully complete the Environmental Assessment for our project. We believe that it is extremely important that our two efforts are closely coordinated in order to insure that the best possible decisions can be

made by both the BLM and the Department. In consideration of your efforts to remain on schedule, and in response to your request for information sooner rather than later, we have conducted a more detailed analysis of the most probable corridor locations to be studied within the proposed BLM land exchange areas. Our analysis primarily focused on the Santo Domingo and San Felipe-Phase I proposed exchange areas as they are the subject of your current study. We understand that a separate environmental study will be conducted by the BLM for the San Felipe-Phase II area, allowing more time for the Department's study to advance in that area. The attached display indicates those lands situated within the San Felipe-Phase I exchange boundaries that have a high potential for supporting a future transportation corridor. The potentially affected lands as identified on the display are comprised of a combination of Federal, State, and privately owned lands, and are situated along the southern and western boundaries of the proposed San Felipe-Phase I exchange area. The existing County Road CS2A corridor situated between the Santo Domingo and San Felipe-Phase I proposed exchange areas will also most likely be evaluated as a potential route. The conceptual corridors shown in the San Felipe-Phase II exchange area are very conceptual in nature and are shown here for general information only. More detailed analysis of this area will be completed coincident with the advancement of both the BLM and Department analysis of this area.

The Department is required by our internal procedures to complete the analysis for this project in accordance with our established three phase approach. At this time we do not know which alternative corridor if any will be recommended for implementation as a result of our study. We are confident however, that by conducting a more detailed analysis in the Santo Domingo and San Felipe-Phase I exchange areas, we have been able to provide you with the information you are seeking for inclusion in your on-going analysis. We thank you for your continued efforts to insure proper coordination between the two studies, and we look forward to the opportunity to provide further input as appropriate.

If you have any questions regarding this transmittal or if you would like to discuss the project further, please feel free to call me.

Sincerely,



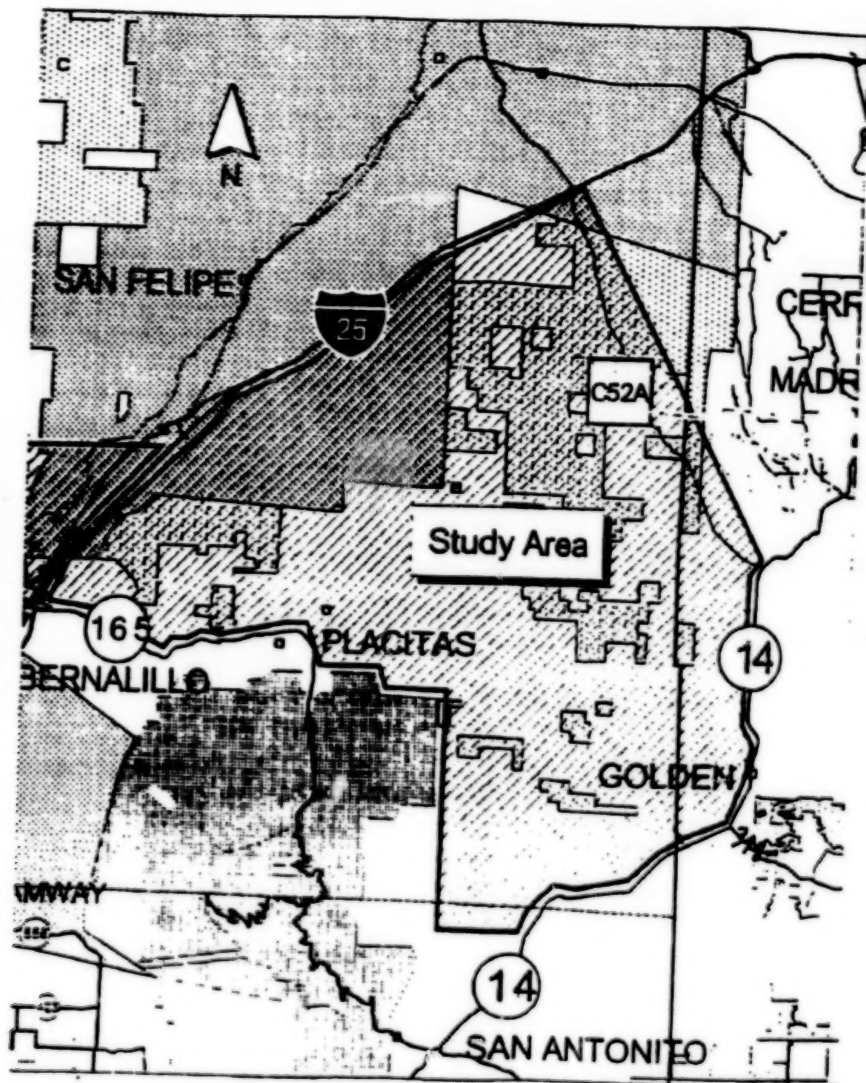
Paul P. Martinez, P.E.
NMSHTD- Project Development Engineer

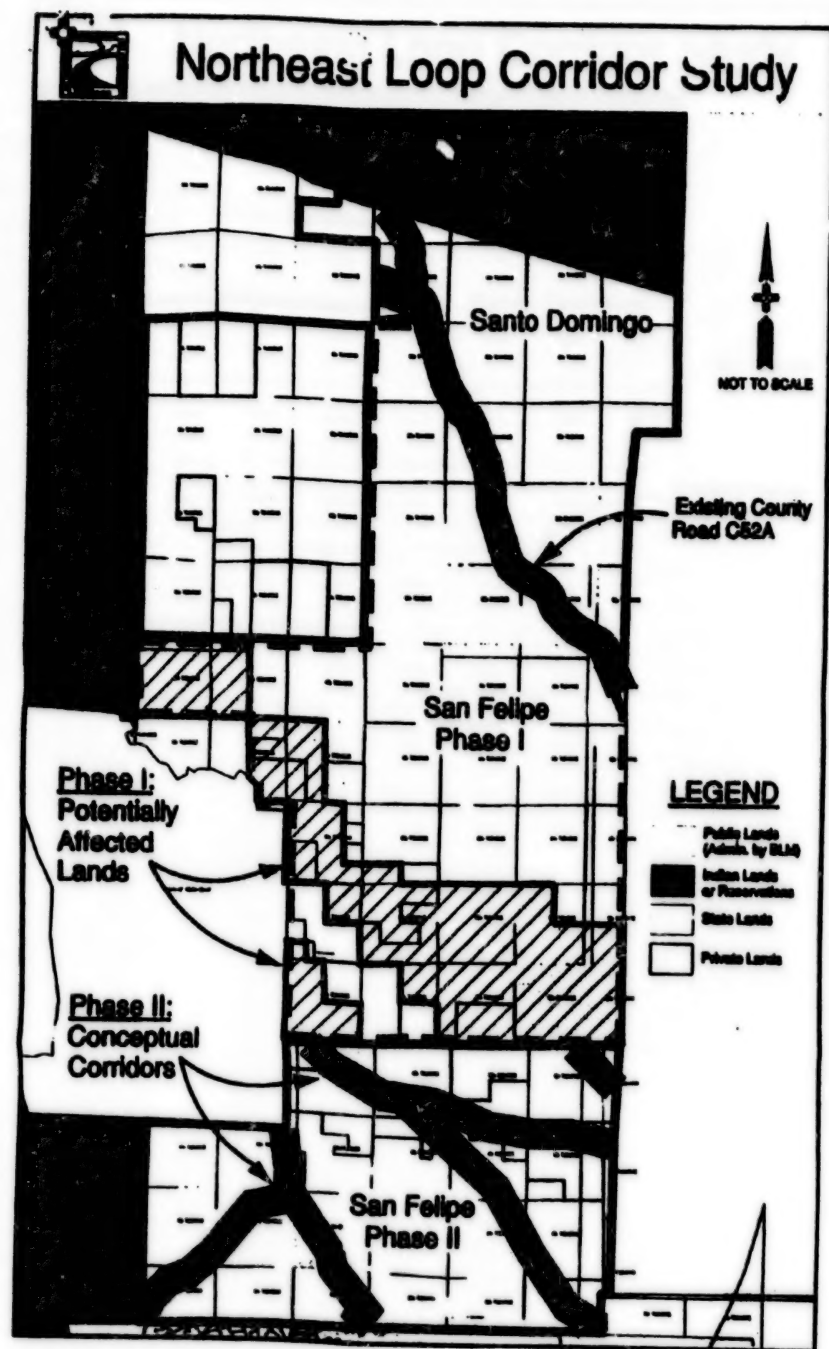
Attachments: Study Area Boundaries

Potentially affected lands within proposed exchange areas

Copy: Robert Romero - NMSHTD (with attachments)
Steve Harris - NMSHTD Dist. 3 (with attachments)
K.Lynn Berry - NMSHTD (with attachments)
Carlos Padilla - Parsons Brinckerhoff (with attachments)

NE Albuquerque Study





County of Bernalillo

State of New Mexico



BOARD OF COUNTY COMMISSIONERS
 DAVIDSON J. BERGAM, CHAIR
 DISTRICT 4
 TONY SUTHERLAND, VICE CHAIR
 DISTRICT 3
 KEN SUTHERLAND, MEMBER
 DISTRICT 1
 STEVE D. GALARRAGA, MEMBER
 DISTRICT 2
 LEO HERRERA, MEMBER
 DISTRICT 5
 JOHN D. WHEEL, COUNTY MANAGER

MARK CARRILLO, ASSESSOR
 JERRY D. WOODWARD, CLERK
 IRA REISBERG, PROBATE JUDGE
 JOE BOWEN, SHERIFF
 ORLANDO VIEL, TREASURER

2400 BROADWAY, S.E.
 ALBUQUERQUE, NEW MEXICO 87102
 PUBLIC WORKS (505) 848-1500

December 1, 2000

Mr. Edwin Singleton, Field Manager
 Albuquerque Field Office
 Bureau of Land Management
 435 Montano Road N.E.
 Albuquerque, New Mexico 87107

Re: BLM Exchange with San Felipe and Santo Domingo Pueblos
 NMNM 101521, NMNM 101522

Dear Mr. Singleton:

11

Bernalillo County is supportive of delaying the subject land exchanges until the NMST&TD has concluded the location corridor study of the Northeast Transportation Corridor. This makes good sense from a long-range planning perspective. However, it is also important for your agency to be aware that the potential of this facility is of some concern to the County.

The alleged "purpose" of this facility is to provide a connection between N.M. 14 and I-25 that will provide an alternative to motorists when I-40 is closed through Tijeras Canyon. This only happens a couple of times a year, and it is unlikely that this facility (if it were built) would remain open if the Canyon were closed (major portions of it are at a higher elevation than the Canyon) and most motorists would have to access it by traversing N.M. 14 or potentially Mountain Valley and Frost Road.

The other alleged purpose is to provide East Mountain Area residents with "improved access" to Albuquerque. We have conducted model runs to evaluate this issue and in the twenty-year time frame it carries very little traffic. Most of the alignments are too far north to provide any benefit at all in this regard. The only alternative that even comes close to providing better access for a small portion of Sandoval County in the East Mountain Area, is the alignment that runs through Piasa which was vigorously opposed at the first set of public meetings. This facility was even excluded from the

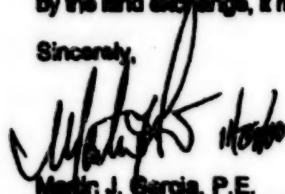
Response 11- Comment Acknowledged.

Singleton
December 1, 2000
Page 2

Middle Rio Grande Connection Study as a "strategic" corridor because it did not meet even the basic requirements of a qualitative screening process.

It is clear that the primary reason for considering a facility in this area, at this time, is to open up more land for development opportunities. Apparently this is not seen as an acceptable justification for those supporting the facility, so other justifications that have little or no technical merit (e.g., emergency relief route/improved access) are being brought to the table. There will come a time perhaps, when a facility in this area will provide some benefit to both motorists and adjacent property owners. If this study identifies a preferred alternative and related right-of-way requirements, then perhaps it will have served its purpose. Since some of the alignments would be compromised by the land exchange, it makes sense to delay the swap until this study is completed.

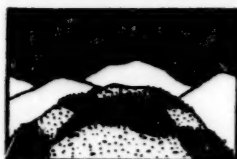
Sincerely,



Martin J. Garcia, P.E.
Public Works Division Director

cc: Juan R. Vigil, County Manager

Chris Blewett, PW Director
Policy, Planning, & Development



Western Land Exchange Project

P.O. Box 95545, Seattle, WA 98145-3545
 (206) 325-3543 / fax (206) 325-3541 -2 TDD: 57
 web: www.westlx.org

December 29, 2000

USDI BLM
 Albuquerque Field Office
 435 Montano Rd, NE
 Albuquerque, NM 87107

Dear BLM:

These are our comments on the Santo Domingo Pueblo proposed land exchange DEIS, dated November 2000.

12-A An exchange of anything between two parties is judged by the merits of the products exchanged. It is impossible to determine the benefits to either party of any given exchange without an understanding of what was given by each party. But this DEIS attempts to do just that, and asks commenters to do the same: to judge this exchange without even knowing what the public is going to receive. You are going to have to enumerate in some fashion just what it is we are getting in return for the land we are giving up. We cannot make educated comments about this exchange until we know that, and we cannot see how you can make a determination of the public interest without this information, either.

We believe you need to get this information at least marginally defined before you can ask the public to comment on an environmental impact statement.

12-B The conservation easement appended to the DEIS is very restrictive. We wonder what is in this bargain for the Pueblo. Any insight you have should be included in the DEIS. Is the Pueblo making this trade solely for the gravel pit they wish to construct? If so, why are they trading for so much extra land? Is it the hunting opportunities afforded by the land that they wish to obtain?

12-C Finally, please give a narrative description of the nearby ACEC lands and why they are designated this way.

Sincerely,


 Erik Ryberg

Response 12-A-The lands to be "offered" have now been identified. This should alleviate your concerns. Keep in mind that the BLM has looked at each of the tracts of offered lands through our planning and NEPA process. It has been determined through this process that the acquisition of the identified tracts would improve BLM's management effectiveness and ability to protect valuable public resources without substantive harm to the environment. Therefore, we are able to determine that by acquiring lands of equal value to those being given up that we are taking steps that are in the public interest.

Response 12-B- In addition to the sand and gravel the Santo Domingo Pueblo would acquire lands that have been identified as having significant traditional cultural values to them. (See page I-I NEED FOR PROPOSED ACTION)

Response 12-C- The ACEC is outside of the scope of this NEPA analysis but the values identified in the ACEC were rare plants, geological and paleontological.



HIGH DESERT CONSERVANCY P.O. Box 520, Placitas, NM 87013

High Desert Conservancy is a nonprofit organization dedicated to the protection of wildlife native to the area, local and migratory birds, the natural landscape, water, night sky, and sites of cultural and scenic significance.

December 28, 2000

The Director
Bureau of Land Management,
435 Montana NE
Albuquerque, NM
New Mexico 87107

Dear Director:

Re: Land Transfer and land use of BLM holding
North of Placitas.

HDC feels that any transfer of holdings to the pueblos (San Felipe and Santo Domingo) was looked over thoroughly by your staff earlier and the pueblos. We have denied the rights of pueblos, lost what is theirs and treated them as sub-humans. The return of these holding as outlined earlier is a just and appropriate one, and warrants support.

As for the NH State Highway + Transportation Department and the Real Estate Market creating a fuss about wanting roads + that use of BLM holdings are ^{degenerating} needed, is one based on greed and laziness. They already have NM 14 and NM 22. However, they feel it is "too far". In an age where cars can travel at 75 MPH and with ease and safety, "too far" is a lame cry. Furthermore, the common feeling amongst these groups is that working with Indians is too difficult - - -

It is not in the best interest of BLM to support racism nor further short sighted goals.

Attached is additional comments.

Thanks, Ted Talbot, Director

Response 13-Comment acknowledged

Part II pg 1. - i aft.

Malak

Additional analysis of the Loop Road demonstrates the agencies playing a game of pence/deception. Firstly the public was never told that Parsons and Brunckerhoff purchased Avid Engineering, one of two contractors by Sandoval County. Avid's did not have a record of welcoming public input. BLM has a visual in one of its early 1990's Master Plans. MRGCyG's Master Plan of the mid-1990's speaks of a corridor going from Socorro to Espanole and about 30 miles either side of I-25 and no doubt plans for either side of I-25. MRGCyG's genesis of the Loop road included the Rio Grande area, through north of Placitas, NM 14 and moving to I-40 via Moriarity (The City of Albuquerque & Bernalillo County were involved by not the Town of Bernalillo or Algodones). Very soon after beginning the process MRGCyG's realized the validity of the situation, played the game of semantics and to hide the real purpose of the road by calling it a population study of the North Area Transport Study (NATS) and focusing it between I-25 and NM 14. However, MRGCyG's could not conceal its ultimate plan when it drew in the Loop road in one of its 4 scenarios of its 2020 Plan! During one review session in Bernalillo I asked who had been responsible for deciding and drawing in the Loop road. My question incurred the wrath of the consultant who caught me face in both hands, or shook my head vigorously and with her face close to mine said she'd take me a lesson! The Albuquerque Journal for the purpose of "clarity" excluded the Loop road when it published the 4-part scenario. However, the Loop road was still on the MRGCyG's 4-part scenario presented to voters. An added caveat will be scare tactics concerning Emergency evacuations and matters of security. Both Diamond Tail Subdivision and Campbell's Ranch have pledged their own sites and volunteers for Fire stations + given away for Sheriff's substations. Furthermore, Diamond Tail is a gated community with its own security by choice. As for Emergency, rather than a road expense study, questions should be raised about fire hydrants that are inoperable, drainage patterns overburdened and attuned by roads and buildings or homes in

old timers remember the
arroyos and flood plains where many still
intensity and evidence of flash floods

but Ipg 2 - dia,

Malalla.

Disclosure clauses in subdivisions indicate flooding of indeterminate heights when in fact technology to calculate exists. As for the spectre of fire, if there is insufficient water to handle the matter in situ, isn't we unrealistic to expect the Loop to be the only protection for the living?

Perhaps the most troubling of statements made by partisans of the Loop is the one designed to pit Placitas against the pueblos about to receive BLM holdings. The guise that these holdings are now being lost for study as an alternate route is a mere leveling tactic. The Loop road has always and only been drawn just North of Placitas.

The study has no feel nor commitment for cultural/historical preservation, visual integrity or concern for air quality, despite these key components for the quality of life in Mexico. Such subtleties are lost/ignored. Avid Engineering/Parsons and Brinckerhoff whose only vision is traffic and traffic.

This \$250,000 study is designed to get the Loop in! For the false premises of the study and covert goals, the study is invalid and should be halted now.

Malalla

Dear Sandoval County Resident: Please take the time to read this 5 part Petition

NOTE: 244 or 142 of 1,738 responded
Lower/Next Placitas = 47 or 192

Your Voice Counts

Middle Placitas = 37 or 132
East Placitas = 44 or 402
P.O. Box = 67 or 282

1) Check each petition action box you agree with. 2) Sign at bottom. 3) Return to the address at bottom of form.

Part 1: Updating the Sandoval County Planning and Zoning Ordinance

- 244 responded We the undersigned urge the Commission of Sandoval County to:
- 217 or 892 ☒ 1. Update/review the comprehensive plan and the County's Planning and Zoning Regulations, publicize the matter in an equitable manner throughout the county.
 - 224 or 922 ☒ 2. Assess impact of growth, transportation and development on adjacent communities / land.
 - 192 or 792 ☒ 3. Lower cost of obtaining documents, and offering drafts at no cost so as to assure broad based participation.
 - 210 or 862 ☒ 4. Include findings of Regional Water Plans, and regulations protective of areas cultural, historical and natural heritage, as well as acequias, irrigation ditches, farm and ranchland.
 - 206 or 842 ☒ 5. Float Bonds to purchase Open Space and lands with historic, cultural, ecological and scenic value to Sandoval County/local areas, or offer tax incentives to achieve the same goals.
 - 175 or 722 ☒ 6. Hire regulatory enforcement staff to maintain standards adopted.

Part 2: Water Conservation and Management

- 244 responded We the undersigned strongly urge and encourage State and Local Elected Officials and the NM State Engineer to:
- 189 or 772 ☒ 1. Support the 4-county Middle Rio Grande Regional Water Plan.
 - 215 or 882 ☒ 2. Develop County Water Conservation Plans, a County Water Budget, and Drought Contingency Plans.
 - 209 or 862 ☒ 3. Place a limit on well permits until ground water research is more fully understood.
 - 207 or 852 ☒ 4. End Water Transfers as they do not represent the actual transfer of water to a location of use.
 - 226 or 932 ☒ 5. Protect limited & precious ground water resources from contamination.
 - 231 or 952 ☒ 6. Review building permits and subdivision requests according to water availability, water conservation plans and drought contingency plans.
 - 180 or 742 ☒ 7. Provide adequate funds to create a position of Water Resource Manager at the County level.

Part 3: Transportation and Road Construction

- 244 responded We the undersigned urge the Commission of Sandoval County to:
- 202 or 832 ☒ 1. Set up a task force of citizens to examine the issues of roads and their impact on rural and traditional communities, area pueblos and the environment.
 - 225 or 922 ☒ 2. Encourage the large Diamond Tail Subdivision to enter and exit from NM 14 on its eastern borders so as to lessen the impact of traffic on Placitas.
 - 201 or 822 ☒ 3. Declare opposition to any new plans to link I-25 to NM14 or roads which could lead to the construction of a 4 to 6 lane outer-loop road linking Rio Rancho to I-40 via the East Mountains.
 - 217 or 892 ☒ 4. Not impose Special Assessment Districts without fair representation and public hearings.

Part 4: Protecting and Enhancing Cultural Resources

- 244 responded We the undersigned urge and encourage the Commissioners of Sandoval County, Elected Officials and responsible agencies to protect the County's rich cultural, historical and natural heritage through:
- 195 or 802 ☒ 1. Legislative action.
 - 218 or 892 ☒ 2. Planning and zoning ordinances.
 - 172 or 702 ☒ 3. Allocation of funds for research, staff and preservation/restoration activities.
 - 172 or 702 ☒ 4. Educational outreach in schools and communities.
 - 126 or 522 ☒ 5. A county-wide Heritage Month celebration.

Part 5: Banning the Use of Firearms and Weapons

- 244 responded We the undersigned request that the Bureau of Land Management (Rio Puerco Area) to:
- 211 or 862 ☒ 1. Update Resource Management Plan and take steps to protect the eco-cultural significance of its holdings.
 - 193 or 792 ☒ 2. Remove holdings from trail list and incursion such as mining, grazing, road and trail building.
 - 190 or 782 ☒ 3. Close area to wheeled traffic except for emergencies, PMM and pipeline maintenance.
 - 172 or 702 ☒ 4. Banning use of fire arms and bows and arrows for hunting or practice.

*See
over*

264 responded.

- We the undersigned request that the Bureau of Land Management (Rio Puerco Area) to:
- 211 or 86 ☒ 1. Update Resource Management Plan, and take steps to protect the eco-cultural significance of its holdings.
 - 193 or 79 ☒ 2. Removing holdings from trade list and incursion such as mining, grazing, road and trail building.
 - 190 or 78 ☒ 3. Closing area to wheeled traffic except for emergencies, PNM and pipeline maintenance.
 - 172 or 70 ☒ 4. Banning use of fire arms and bows and arrows for hunting or practice.
 - 202 or 83 ☒ 5. Declaring historic and cultural trails as historic artifacts worthy of protection.
 - 190 or 73 ☒ 6. Reversing thoroughly all recreational use to limit impacts.

Name (print)	Address (print)	Signature

Please mail completed and signed PETITION by September 8, 1998 to PO Box 520 Placitas, NM 87043 or place it in the yellow ballot boxes at the locations listed overleaf. Thank you for participating.

This petition is sponsored by High Desert Conservancy, a not-for-profit organization that is protective of the environment and sites of cultural and scenic significance, and by Friends of Placitas. Volunteers will tabulate responses and forward information to appropriate agencies.

To mail this ballot, need to show this box

**Make
Your
Voice
Heard.**

**P.O. Box 520
Placitas,
NM 87043**

Place
stamp
here

COMMENT LETTER 14

RESPONSE

Friends of Placitas
P. O. Box 234
Placitas, New Mexico 87043
(505) 867-3889
27 December 2000

Ed Singleton
Bureau of Land Management
U.S. Department of Interior
435 Montano Road NE
Albuquerque, New Mexico 87107

Santo Domingo Land Exchange
San Felipe Land Exchange

Dear Mr. Singleton:

We understand that a decision irgradient in the Santo Domingo Pueblo and San Felipe Pueblo land exchanges is the reservation (or not) of a highway corridor linking I-25 to SR-14. Since BLM will be involved in making that kind of decision, we think it is important that you have a good understanding of public opinion relating to the corridor issue.

14

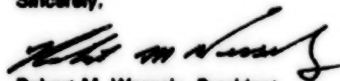
A vast majority of the people who are affected by the decision - both Placitas residents and East Mountain residents - are strongly opposed to any new highway connecting the two routes. Being realists however, and understanding that NMSHTD might have an institutional need to build anyway, those same people voiced the opinion that the only acceptable route would be the far lower cost old State Highway 22.

We are enclosing a copy of a presentation that was given to the Sandoval County Commission, including the petition containing over one thousand names opposed to the highway. We are also enclosing copies of four letters that were sent to the NMSHTD and to its contractor in September.

If in fact, any roadway right-of-way is needed, we ask that reservation of right-of-way in the land exchange allow for only the old SR-22 route. In other words, we are asking that the corridor reservation through the Placitas area, that already appears in your November 2000 draft EIS for the Santo Domingo Pueblo land exchange, continue to allow only for electric power lines - in both land exchanges, and also in any land which BLM chooses to retain.

We thank you for the opportunity to comment on this issue. If needed, please do not hesitate to contact me via the above telephone numbers.

Sincerely,



Robert M. Wessely, President
Friends of Placitas

Encl: County Commission Presentation/Petition
FoP/EMLDF Letter: Public Comment/Oral
FoP/EMLDF Letter: Public Comment/Process
FoP/EMLDF Letter: Public Comment/Petition
LPA Letter: Public Comment

05 DEC 23 2000
BLM
RECEIVED

Response 14-Comment acknowledged

Public Service Company
of New Mexico
Attn: Mr. [redacted] - MS 2101
Albuquerque, NM 87103
888 241-4488
Fax 505 241-5570

00 DEC 22 PM 12: 02

December 20, 2000

Debby Lucero
BLM Alb. Field Office
435 Montano N.E.
Albuquerque, New Mexico 87107



Subject: Comments on Land Exchange EIS

Dear Ms. Lucero:

Thank you for taking the time to meet with me on December 18th at the BLM open house held to discuss the draft environmental impact statement for the proposed Santo Domingo Land Exchange. This letter shall serve to document the few comments I offered on behalf of Public Service Company of New Mexico (PNM) regarding the draft EIS for the portion of the exchange dealing with the Santo Domingo Pueblo.

In the middle of page 4-4 of the EIS there is discussion concerning PNM rights of way on the exchange lands. PNM certainly supports the BLM position regarding the two existing PNM electric transmission lines that pass through the exchange lands. Specifically, it is understood from the EIS that the rights of way for the two existing power lines will "be reserved in the patent" conveyed to the Pueblo by the United States, and "would continue to be managed by the BLM" in perpetuity. PNM believes that such retention and management of these critical right of way corridors is essential.

15-A Also, in the last sentence of the same paragraph on page 4-4, it states that the "remaining powerline will be subject to that right on the patent." You and I both agreed that the word "powerline" should be replaced by the words "natural gas pipeline." This PNM pipeline is shown on Map 3 of the EIS. It appears to cut across a very small corner of the "Selected Lands" being conveyed to the Pueblo in Section 9 T14N, R63. PNM's first preference is for this small stretch of right of way to be treated the same as the electric power line rights of way discussed above; i.e. reserved in the patent and forever managed by BLM. At the very least, prior to any transfer to the Pueblo of the Selected Lands, PNM desires that the BLM amend the term of this right of way pipeline permit to be in perpetuity, and to ensure that any payments made to the Pueblo after conveyance of the patent be in accordance with BLM land use fees in effect for the perpetual life of the permit.

15-B One final comment on the EIS relates to PNM's interest in obtaining a right of way permit for a proposed new natural gas line that would pass through the exchange lands. Based on my discussion with you, I understand that the BLM and the Santo Domingo Pueblo would not be

Response 15- A- You are correct the words should be "natural gas pipeline". The pipeline right of way is in perpetuity and will be shown as a valid existing right on the patent in the exchange. The BLM has no authority to set future fees.

Response 15-B-An alternate route has been resolved through negotiation.

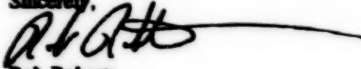
Debby Lucero
December 20, 2000
Page Two

averse to granting PNM such a permit prior to the exchange taking place, provided that the proposed pipeline basically follows the corridor identified in Map 2 of the EIS. PNM is still pursuing this idea and intends to walk the area in the very near future, weather permitting.

I understand that the draft EIS for the San Felipe Pueblo exchange lands will be provided to PNM and the general public early next year. PNM is assuming that for the San Felipe exchange, the existing major transmission line right of way corridors (electric and natural gas) will be reserved in the patents and managed in perpetuity by the BLM. PNM looks forward to reviewing the next EIS and working with the BLM in this regard.

If you have any questions, please feel free to call me at 241-2564.

Sincerely,



Rob Roberts
Manager, Right of Way Department

Cc Henry Townsend
Cc Dave Kirkland

00 DEC 20 AM 10:46

Date Received: _____
Comment Number: _____SAN FILIPPO/SANTO DOMINGO LAND EXCHANGES
SCOPING COMMENT SHEET

SUBMIT COMMENTS BY:

X Submitted by Mail () Open House, December 18, 2000 () In Person

Please share your ideas, comments, and concerns in the space provided below. Fold this form and submit in the self-addressed envelope. Attach postage, and return to the BLM by December 30, 1999. If you prefer, you may send a letter instead of this comment sheet by December 30, 1999. Please specify in comments which exchange is being addressed. For additional information, please contact:

EDWIN Singleton January 15, 2000
Bureau Manager, BLM Albuquerque Field Office
435 Montano NE, Albuquerque, New Mexico 87107
505/761-8787

I have reviewed the (EIS) for the BLM Santo Domingo
Land Exchange and it is in the best interest of all the
people involved (State of New Mexico) that it go with
Alternative (C) No Action.

Reasons:

Open space is disappearing (future generations)
all people have access to land
this land belongs to the public, NM, USA.

if this is sacred, historical, cultural, and traditional
land to the Pueblo why is STATE ROAD an eye
ore. Take a drive and you will see beer cans & beer
bottles, 12 pack cardboard boxes along the road, and
in about 7 areas where the Indians used to set
drum, I have seen them just out on the sides of the Rd.
burned their trash, this goes on quite every week.
Can the Indians drink on the proposed land exchange?

Last Name MARTINEZ First Name JOE Initial LEO

16-A | Why was the BLM mission statement dropped from these
proposals. Ceter to cladion
over 1.

Response 16-A- The statement was printed in both the draft and final
EIS on Appendix A.

All BLM is variable no matter where it is. And should be kept for area residents (public use).

it would like to see all of the past land exchanges that have happened, proposed, present and acreage amounts.

Four Blue Lake.

+ Fort Wingate - Navajos

+ west of San Juan - San Juan Indians

+ Santa Domingo - proposed

+ San Felipe - proposed

Why are the Native Americans getting all this land?

What about the Spanish Land Grants. I have not seen any exchanges involving Spanish people.

NO TO ALL! (ALTERNATIVE C)

Leo Montano

December 10, 2000

RECEIVED
BLM

00 DEC 14 12:10:36

Mr. Edwin Singleton, Albuquerque Field Manager
435 Montano NE
Albuquerque, NM 87107

Re: Santo Domingo Pueblo/Bureau of Land Management Proposed Land Exchange
NMNM 101521
2200 (010)

Dear Mr. Singleton:

Thank you for sending the copy of the draft Environmental Impact Statement (EIS) on the above proposed exchange. I also appreciated the time you took the other day to review it in the office. I have reviewed the document. I had several questions specific to the document that I will list in order of page numbers below. I also had a few comments/suggestions that I will list after the questions.

Questions Specific to the Document

- 17-A ? In the Summary Comparison of Alternatives, the surface potentially disturbed between the Proposed Action and the No Action Alternative is the same (1300 acres) but the water use for sand and gravel mining would be 5 acre feet per year in the Proposed Action and would be 10 acre feet per year in the No Action Alternative. I am unclear why the water use would be higher in the No Action Alternative when the surface disturbance would be the same.
- 17-B ? In the Summary Comparison of Alternatives, the cubic yards of sand and gravel that are not accessible due to the conservation easement is 129 million in the Proposed Alternative but is 97 million in the Alternative B which doesn't have a Conservation Easement. I am unclear why any gravel would be not accessible due to a conservation easement in Alternative B.
- 17-C ? Page 3-10, last paragraph, first sentence - I believe it should be "counties" rather than "countries".
- 17-D ? Page 4-4, Impacts to Land Uses (Selected Lands), second paragraph, last sentence reads, "Sandoval County would be a right-of-way before the proposed exchange would be completed." Has a word been omitted? Should it be "Sandoval County would be granted a right-of-way"?
- 17-E ? Page 4-1 indicates that the BIA will manage the conservation easement and that the BIA will also manage the land. In that event, I am unclear how the conservation easement would be enforced when the same entity manages both the easement as well as the land. Usually, a third party holds the easement. The third party retains the ability to enforce the easement through legal action if the

Response 17-A- The mining water use is based on use for a single mine operation. The Pueblo indicated the intent to have just a single operation. Under the No Action Alternative it was assumed that mining would occur in two operations. The 1,300 acres would be mined in less time.

Response 17-B- It is not inaccessible due to the conservation easement. It was assumed that the 1,500 acres to be developed as residential/business would not be mined for sand and gravel.

Response 17-C- You are correct. The correction has been made in the final document.

Response 17-D- This statement has been taken out of the final EIS because we discovered that Sandoval County already has a valid existing right.

Response 17-E- BLM has considered these matters including who should administer the easement and has determined that BLM will administer the easement.

landowner takes actions that are not in keeping with the terms of the easement. In this case, it appears that the same party would hold both the land and the easement. Could you please clarify how such an arrangement would function in the event that the BIA wished to modify the easement in the future? Would the BIA negotiate with itself? If the BIA took actions that were not in keeping with the easement would the BIA sue itself? It appears that the easement alternative has the purpose of addressing potential public concerns about loss of habitat and broader gravel mining than may be initially contemplated by the Pueblo. Has the BLM considered whether it should retain the easement? Has the BLM considered whether some other third party such as the Nature Conservancy would hold the easement?

17-F

? Page 4-14, last paragraph, characterizes the use of water by sand and gravel operations as follows, "The total water use for sand and gravel mining between Bernalillo and the selected land area is estimated not to exceed 25 acre feet per year." I believe this estimate is incorrect. I am enclosing a copy of some e-mails that I exchanged with Andrew Liouwen of the New Mexico State Engineer's office in December 1998. The Lafarge Placitas Pit at that time had permit number RG-49516, which was permitted to withdraw 359 acre-feet per annum. In 1998 their total diversion was 342.49 acre-feet. Thus, the water used for that plant alone was 14 times more than the DEIS estimate for the entire area from Bernalillo to the selected land area. I am also enclosing a copy of a letter I received via e-mail from the New Mexico Environment Department that describes that air quality permit as follows: The pit has an air quality permit #732-M-1 that is limited to 850 tons per hour, 12 hours per day, 6 days per week, 4 weeks per month and 12 months per year. Thus, the annual maximum production for this plant under the current permit is approximately 2.9 million tons. You may wish to re-evaluate the impacts to water use in the selected lands for sand and gravel mining.

17-G

? Pages 4-7, 4-14 and 4-15 discuss payments in-lieu-of taxes (PILT) and the impact of this exchange on Sandoval County. On page 4-7, last paragraph, this decrease is characterized as approximately 11,000 per year and representing less than 1% of the County's recent budget. Page 4-14 characterizes the decrease in PILT as resulting from a payment of \$1.55 per acre and states that it will amount to \$11,400 for Sandoval County. However, under the Cumulative Impacts Section, starting at the bottom of page 4-14 and continuing at the top of page 4-15, it references total recent and proposed exchanges of 35,260 acres in Sandoval and Santa Fe counties. It is not stated how that acreage is distributed between Sandoval and Santa Fe counties, thus it is not possible to determine what the total cumulative impact of the decrease in PILT would be to Sandoval County. If that total acreage were to be lost to Sandoval County, the decrease in PILT would be \$54,563, or five times the amount cited as resulting from this exchange, which, I assume might amount to 5% of the County budget. It is also noted that when some of the lands are acquired, some of the PILT may be restored but possibly not to the same counties that lost it. However, whether this is an actual offset to the

Response 17-F-The concluding sentence of the paragraph quoted states "We do not have the data to estimate all water uses." We had attempted to address the water use for sand and gravel mining. In other words getting the material out of the ground. The figures you have quoted include processing the material (crushing, washing, sizing) which increase the water requirements.

Response 17-G- All of the data requested is not readily available. Because the amount of PILT payments at \$11,400 was .0005% of the Sandoval County's receipts for the year 2000. The tax on comparable private acres would likely be slightly higher but this would depend on taxable value and mil levies and they would have to be much higher before they would be meaningful in the impact analysis.

98

PILT loss in the affected County will depend on whether the land being acquired is currently in private hands and paying the usual real estate taxes. Could the BLM please clarify this section further to include a breakdown between Santa Fe and Sandoval Counties as to total acreage being lost for the purposes of PILT? At this point, can the BLM provide any guidance as to the general distribution by County of the Offered Lands to be acquired for the purposes of understanding the net loss in PILT to the Counties affected? Are the Offered Lands to be acquired primarily private lands? If so, how will the real estate tax payments to be lost upon federal acquisition compare to PILT payments? Do I understand correctly that unless the PILT is substantially higher than County taxes, the affected Counties will still experience a net loss of revenue as a result of these exchanges? (The exchange to the Pueblo will decrease PILT to the County but the acquisition of private lands would simply decrease real estate taxes and replace them with PILT.)

17-H ? Page 5-3 notes that Equilon Pipeline Company provided written comments about this land exchange dated December 21, 1999, received by the BLM on December 27, 1999. Can you please clarify whether the area affected by this exchange includes the right-of-way for any existing or proposed Equilon pipelines? I am also enclosing a separate FOIA request. I would appreciate receiving a copy of that correspondence.

Comments/Suggestions

17-I I am unclear about how the BLM intends to value this land for the purpose of this exchange. Is it correct that the BLM must charge fair market value for the land? You had indicated that Santo Domingo would mine only enough gravel to pay for the land. How can the BLM charge fair market value for the land (which would presumably include the fair market value of the minerals plus the value of the land) in such a way that the Santa Domingo Pueblo can mine the land to pay for the land and still keep the land? I would appreciate it if this point can be clarified further.

17-J The Draft EIS mentions on page 1-1 that this exchange is consistent with the PLM Rio Puerco Resource Management Plan. However, that plan was adopted prior to Sandoval County having a land use plan. The County did not have such a plan until 1990. While the RMP was maintained in 1992, that process requires no public input and permits no consideration of changes to the decisions reached in 1986 when the plan was adopted. As far as I have been able to determine, the BLM has never evaluated its RMP for consistency with Sandoval County's Comprehensive Plan. The BLM is required to consider whether its decisions are consistent with local plans (see page V-17 in the BLM NEPA Handbook and 40 CFR Parts 1502 and 1506). If the BLM makes decisions that are inconsistent with local plans, the BLM is required to explain its reasoning (see Council on Environmental Quality Forty Most Asked Questions, 23 a-c). I am enclosing a letter from Congresswoman Heather Wilson stating that the Rio Puerco RMP is not consistent with countywide zoning. I would suggest that the BLM should evaluate this

Response 17-H-There are no current or proposed Equilon rights-of-way in the area affected by this exchange. The area is currently segregated.

Response 17-I- The BLM must receive fair market value for the lands based on the values being exchanged. The Pueblo will need to come up with the funds required to acquire the "offered" lands.

Response 17-J- Congresswoman Wilson was not specific as to where the inconsistencies were so we can only try to point out that in our review of the Sandoval County Comprehensive Plan we believe the following consistencies exist.

Section I- A. POLICY: Sandoval County shall be developed in ways which take into account diverse, distinctive geographic areas within the county, the needs and desires of the people living in each geographical area, traditional land uses, and development trends, especially those resulting from the growth of the Albuquerque metropolitan area.

We believe the proposed action is consistent with the first three points in this policy and we do not feel that it is entirely possible to meet the traditional land use policy and the development trends resulting from Albuquerque's growth.

- Section I-B. POLICY: Sandoval County shall retain a prevailing rural residential character while promoting and orderly development of business and industry in appropriate locations.

We believe the Proposed action helps to retain the rural residential character and the proposed mining of sand and gravel occurs where mining of sand and gravel can occur, where it occurs in the geological formations.

- Section I-C. POLICY: Sandoval County shall seek to protect its natural resources and environmentally critical areas from destructive effects of development.

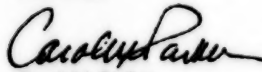
information and consult carefully with Sandoval County as to any concerns that the County may have about this exchange.

17-K

My reason for bringing up this subject is that I am not clear that BLM has adequately considered gravel mining resources that are available for the Albuquerque/Santa Fe markets. One of my original concerns about these exchanges is that a very large portion of the remaining local reserves would leave federal ownership. There is no mention in the Draft EIS as to what percentage of the gravel reserves will be in tribal hands when this exchange and the remaining exchanges are completed. I would like to see something in the Draft EIS evaluating the potential cumulative impact of the pressure to mine the BLM land in Placitas. If that will be the only material left available for these large markets, are the Pueblos in the position of charging substantially higher rates? If they were to do so, would that increase the pressure on BLM to mine the Placitas lands? Since it has been so long since the RMP was prepared, I am not sure that the priorities of that Plan would still be the same if a new Plan were prepared today. I would like to see the BLM lands in Placitas preserved for low impact recreation such as horseback riding, mountain biking, hiking and bird watching. However, if these exchanges remove so much gravel from federal ownership that pressure intensifies to mine the remaining BLM Placitas lands, that would be a grave concern. I hope that more information can be provided that will clarify whether this concern is justified.

Thank you for the opportunity to comment on this Draft Environmental Impact Statement. I look forward to receiving a copy of the final EIS when it is available.

Sincerely,


Carol M. Parker

cc: Debbie Hays, Sandoval County Manager
William Sepien, Sandoval County Commissioner
Congresswoman Heather Wilson

17-J Con't

We believe the proposed action with its conservation easement protects the natural resources and environmentally critical areas.
Section I-D. POLICY: Sandoval County shall protect significant historic sites and preserve traditional cultural practices in the County.

A factor in the Pueblo selecting the proposed Selected Lands was to have control of the lands for use in preserving traditional cultural practices.

Section I-E. POLICY: As a large percentage of the land within the County is not subject to County Control, the county shall closely coordinate land use and development activities with incorporated municipalities, Indian pueblos, and the state and federal governments.

We agree with the County that they do not have control of what is done on lands administered by federal agencies but the BLM does try to cooperate with local and county governments to the extent possible in promoting county plans. The BLM has not received comments from Sandoval County objecting to or questioning the proposed action.

Response 17-K- BLM does not have figures on the total sand and gravel reserves accessible to the Albuquerque/Santa Fe market but it seems evident that the more of the resource out of the reach of the market the greater the demand will be on the remaining resource.

1-0916

From Officer's Note: Suzanne

Subject: RG-49516

Date: Sat, 12 Dec 1998 16:32:00 -0700

From: "Carol M. Parker" <cmarker@worldnet.att.net>

To: Andrew Linowen <Linowen_Andrew@osa.state.nm.us>

Dear Andrew - I got your e-mail address from Rebecca Summers. Could you please update me on the water use so far this year for permit # RG-49516 - and verify that I am correct that that is the Western Mobile Placitas gravel pit. I hope at this point that you have the November 30th numbers? Also, pls tell me how many acre feet they are permitted to use. Thank you - Carol Parker

RG-49516

Subject: RG-49516

Date: Mon, 14 Dec 1998 08:30:17 -0700

From: Linowen_Andrew@osa.state.nm.us

To: cmarker@worldnet.att.NET

Carol,

RG-49516 is the Placitas well, permitted to divert 350 acre-feet per annum, and they have diverted 320.84 acre-feet per annum through 10/31/98. We should be receiving the November number any day now - will send to you and Rebecca when I receive it.

Al

Subject: Re: RG-49516
Date: Fri, 22 Jan 1999 15:23:03 -0700
From: Lianwen Andrew@eco.state.nm.us
To: cmporter@worldnet.att.net
CC: raumner@zianet.com

Greetings Carol:

The December 1998 diversion was 3,120,400 gallons or 9.38 acre-feet.
Total for 1998 was 342.49 acre-feet.

I have not seen any applications to increase their diversion.

Andrew

out of 359 af/yr

RE: Permit #732-M-1, Western Mobile - Placitas Portable Rock Crusher

The Air Quality Bureau (AQB) received your questions regarding Western Mobile's Placitas Rock Crushing facility and appreciates your interest in this facility. The following is a summary of permit conditions and ambient air quality impacts in addition to answers to your two questions.

Facility/Permit Conditions

The facility is permitted to operate a 850 ton per hour portable sand and gravel crushing and screening plant. The facility is restricted to operate no more than 12 hours per day, 6 days per week, 4 weeks per month and 12 months per year.

Ambient Air Quality Impacts

Under the above permit conditions, air dispersion modeling shows that ambient TSP impacts are 96.3% of the annual New Mexico Ambient Air Quality Standard (NMAAQS) and 78.5% of the 24-hour NMAAQS and that PM-10 impacts are 75.6% of the annual National Ambient Air Quality Standard (NAAQS) and 65.1% of the 24-hour NAAQS.

Question #1

With a permit modification, could Western operate 24 hours per day (do you ever allow gravel crushers to work around the clock?)

This question can only be answered in the context of a permit modification application and review. In addition to air dispersion modeling of ambient impacts, the review would require an analysis of all emission points, control methods and applicable regulations. The dispersion modeling includes emission contribution from surrounding sources, such as neighboring crushers and asphalt plants.

The AQB has permitted rock crushing facilities to operate 24 hours per day.

Question #2

By looking at the existing permit language and equipment on-site, could Western Mobile do a permit mod and operate 18 or 24 hours per day (how close are they from exceeding any emission limits?)

Again, this question can only be answered in the context of a permit modification application and review. In addition to air dispersion modeling of ambient impacts, the review would require an analysis of all emission points, control methods and applicable regulations. The dispersion modeling includes emission contribution from surrounding sources, such as neighboring crushers and asphalt plants.

Considering the facility is currently at 96.3% of the annual NMAAQS for TSP, if Western Mobile wanted to significantly increase their operating hours to more than 12 hours per day, while not reducing the other operating hours limitations, they would need to install

additional control systems to reduce emission rates.

If you would like to meet with AQB staff to discuss further the details of permit #732-M-1, please contact me at 505/827-1494 (X1470) or e-mail at George_Llewellyn@nmenv.state.nm.us.

HATHER WILSON
Washington, DC 20515-3101

CHAIRMAN
Subcommittee on
Conservation and Forestry
Committee on
Resources and Independent Agencies
U.S. House of Representatives
Washington, DC 20515-3101
Telephone: 202-225-6100
Fax: 202-225-6101
E-mail: hatherwilson@house.gov

Congress of the United States
House of Representatives
Washington, DC 20515-3101
October 17, 2000

THE CLERK, U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-3101
TEL: 202-225-6100
FAX: 202-225-6101
E-MAIL: clerk@house.gov

Mr. Tom Fry
Director, Bureau of Land Management
1949 C Street NW (MS 5660-MER)
Washington, D.C. 20240

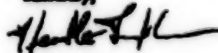
Dear Director Fry,

As you know, the Fiscal Year 2001 Interior Appropriations bill was recently signed into law. The bill contained a significant amount of funding for the Bureau of Land Management (the Bureau) to update a number of its Resource Management Plans. Although I requested funding for it, that list does not include the Rio Puerco, a river in my home state of New Mexico.

The Bureau adopted the Rio Puerco Resource Management Plan (RMP) in 1986. While the plan has been effective in many areas, it is outdated and fails to consider population and development changes that have occurred since the plan's adoption. It is also inconsistent with countrywide zoning implemented in 1990, and does not include the most up-to-date preventative measures needed to protect the land and its inhabitants from the raging fires that have occurred this year.

While there is no funding specifically set aside to update this RMP, I know that the Bureau has included funding for the Rio Puerco in its base budget for soil, water, and air projects. I respectfully request that you consider allocating some funds to update the Rio Puerco's RMP. Thank you for your time and I look forward to your reply.

Sincerely,



Hather Wilson

HW:ms

under NEPA and the relevant state environmental policy act? How do they resolve differences in perspective where, for example, national and local needs may differ?

A. Under Section 1501.5(b), federal, state or local agencies, as long as they include at least one federal agency, may act as joint lead agencies to prepare an EIS. Section 1506.2 also strongly urges state and local agencies and the relevant federal agencies to cooperate fully with each other. This should cover joint research and studies, planning activities, public hearings, environmental assessments and the preparation of joint EISs under NEPA and the relevant "little NEPA" state laws, so that one document will satisfy both laws.

The regulations also recognize that certain inconsistencies may exist between the proposed federal action and any approved state or local plan or law. The joint document should discuss the extent to which the federal agency would reconcile its proposed action with such plan or law. Section 1506.2(d). (See Question 23).

Because there may be differences in perspective as well as conflicts among [46 FR 18033] federal, state and local goals for resource management, the Council has advised participating agencies to adopt a flexible, cooperative approach. The joint EIS should reflect all of their interests and missions, clearly identified as such. The final document would then indicate how state and local interests have been accommodated, or would identify conflicts in goals (e.g., how a hydroelectric project, which might induce second home development, would require new land use controls). The EIS must contain a complete discussion of scope and purpose of the proposal, alternatives, and impacts so that the discussion is adequate to meet the needs of local, state and federal decisionmakers.

★ 23a. Conflicts of Federal Proposal With Land Use Plans, Policies or Controls. How should an agency handle potential conflicts between a proposal and the objectives of Federal, state or local land use plans, policies and controls for the area concerned? See Sec. 1502.16(c).

A. The agency should first inquire of other agencies whether there are any potential conflicts. If there would be immediate conflicts, or if conflicts could arise in the future when the plans are finished (see Question 23(b) below), the EIS must acknowledge and describe the extent of those conflicts. If there are any possibilities of resolving the conflicts, these should be explained as well. The EIS should also evaluate the seriousness of the impact of the proposal on the land use plans and policies, and whether, or how much, the proposal will impair the effectiveness of land use control mechanisms for the area. Comments from officials of the affected area should be solicited early and should be carefully acknowledged and answered in the EIS.

23b. What constitutes a "land use plan or policy" for purposes of this discussion?

A. The term "land use plan," includes all types of formally adopted documents for land use planning, zoning and related regulatory requirements. Local general plans are included, even though they are subject to future change. Proposed plans should also be addressed if they have been formally proposed by the appropriate government body in a written form, and are being actively pursued by officials of the jurisdiction. Staged plans, which must go through phases of development such as the Water Resources Council's Level A, B and C planning process

should also be included even though they are incomplete.

The term "policies" includes formally adopted statements of land use policy as embodied in laws or regulations. It also includes proposals for action such as the initiation of a planning process, or a formally adopted policy statement of the local, regional or state executive branch, even if it has not yet been formally adopted by the local, regional or state legislative body.

★ 23c. What options are available for the decisionmaker when conflicts with such plans or policies are identified?

A. After identifying any potential land use conflicts, the decisionmaker must weigh the significance of the conflicts, among all the other environmental and non-environmental factors that must be considered in reaching a rational and balanced decision. Unless precluded by other law from causing or contributing to any inconsistency with the land use plans, policies or controls, the decisionmaker retains the authority to go forward with the proposal, despite the potential conflict. In the Record of Decision, the decisionmaker must explain what the decision was, how it was made, and what mitigation measures are being imposed to lessen adverse environmental impacts of the proposal, among the other requirements of Section 1505.2. This provision would require the decisionmaker to explain any decision to override land use plans, policies or controls for the area.

24a. Environmental Impact Statements on Policies, Plans or Programs. When are EISs required on policies, plans or programs?

A. An EIS must be prepared if an agency proposes to implement a specific policy, to adopt a plan for a group of related actions, or to implement a specific statutory program or executive directive. Section 1506.18. In addition, the adoption of official policy in the form of rules, regulations and interpretations pursuant to the Administrative Procedure Act, treaties, conventions, or other formal documents establishing governmental or agency policy which will substantially alter agency programs, could require an EIS. Section 1506.18. In all cases, the policy, plan, or program must have the potential for significantly affecting the quality of the human environment in order to require an EIS. It should be noted that a proposal "may exist in fact as well as by agency declaration that one exists." Section 1506.23.

24b. When is an area-wide or overview EIS appropriate?

A. The preparation of an area-wide or overview EIS may be particularly useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. For example, when a variety of energy projects may be located in a single watershed, or when a series of new energy technologies may be developed through federal funding, the overview or area-wide EIS would serve as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographical area.

24c. What is the function of tiering in such cases?

A. Tiering is a procedure which allows an agency to avoid duplication of paperwork through

Las Placitas Association

September 20, 2000

New Mexico State Highway and Transportation Department and
Parsons, Brinckerhoff, Quade & Douglas, Inc.
5801 Osuna Road, NE, Suite 200
Albuquerque, New Mexico 87109

Re: Public Comment
Attn: NM14 to I-25 Connection Corridor Study

Ted Garcia, NMSHTD
Carlos Padilla, PBQ&D
Dale Glass, PBQ&D
Jim Kolbaum, PBQ&D
Mike Henderson, PBQ&D

Dear Sirs:

On behalf of the Board of Las Placitas Association, I am writing to provide comments in response to the public meeting that was held in Placitas on Tuesday, August 29th. Las Placitas Association has very serious questions about the need for this project. Based on doubts about the need for the project, we have reservations about the possibility of using federal land, large amounts of tax dollars, and condemning private property in order to build the proposed road. Our detailed comments follow below.

Inconsistency with Focus 2050 Plan

The great preponderance of people at the meeting I attended were opposed to the road in general regardless of its location. If it ultimately must be built, Hwy 22 was the preferred alternative. In addition, it was stated at the meeting that that it was unlikely that the road would be built for at least ten years. The overwhelming opinion of the residents who attended the Placitas meeting was that they do not want the road, and even those who might want it can obviously expect no near term benefit whatsoever.

In the context of planning, it seems reasonable that the Highway Department would consult the Focus 2050 Plan recently prepared by the Middle Rio Grande Council of Governments. This is a laudable effort on the part of local governments throughout the Rio Grande Valley to address the issue of growth, sprawl and development in the context of available resources. Inexplicably, the Highway Department entirely omitted this plan from consideration.

The development of this corridor road is inconsistent with the Focus 2050 plan, which portrays minimal growth for the area to be served by this road. In fact, this road will tremendously stimulate development. If the Highway Department sees a NEPA process resulting from this study, it will need to carefully document the public purpose to be served by taking an action that is inconsistent with the local Plan. This Plan has been approved by the elected representatives of the very persons this road is intended to serve. There was no evidence at the meeting that you had ever considered this issue. We hope when your study is released that careful consultation with the Focus 2050 Plan will be evident.

Furthermore, if it is the Highway Department's plan to request a right of way from the Bureau of Land Management, you should be aware that under federal law, the BLM is required to consider whether its actions are consistent with local plans (40 CFR 1502.16 (c) and 40 CFR 1506.2 (4)(d)). Numerous local and federal officials are on record stating that the BLM's existing Rio Puerco Resource Management Plan (under which the Highway Department might apply for a right of way) is inconsistent with the Sandoval County Comprehensive Plan. The reason is that the BLM Plan is so old that it was passed prior to the existence of the Sandoval County Comprehensive Plan in 1990. Now that the Focus 2050 Plan has been passed, the Bureau of Land Management would also be required under federal law to (1) consider whether an application for a highway right-of-way is in keeping with the Focus 2050 Plan, (2) evaluate the significance of any inconsistency with the Focus 2050 Plan and (3) justify the public purpose to be served in taking an action which is inconsistent with an approved local plan. Thus, the Highway Department may as well consider that issue at the front end. Please feel free to contact me if you need any further documentation of this issue.

Chicken and Egg Problem

You stated at the meeting that growth is coming and it is important to plan transportation improvements for it. No doubt. It is also important to plan to reduce sprawl. Sprawl results in development that in the long run is considerably more costly for local government to serve. Studies have shown that poorly planned development actually costs counties far more than the development brings in tax receipts. This is borne out by experience in Sandoval County. The more development that comes in, the higher taxes go to provide the needed services. If there were any net benefit to local government from additional tax dollars as a result of development, surely we would see that by now in Sandoval County but in reality the result is just the opposite.

Prudently, to control sprawl and reduce this problem, the Focus 2050 Plan was prepared. It is important to consider all plans when contemplating a highway corridor because the corridor itself will greatly stimulate development. This cannot be disputed. While it may be true that Campbell Farming has proposed thousands of lots in the east mountains, proposing lots is different than selling lots. To the extent that people have great distances to travel to employment, those lots will be less attractive and may sell quite slowly. The highway corridor would change those dynamics considerably and, therefore, this impact should be the subject of honest assessment.

When your study is released we would like to see a careful analysis of the impact of this corridor on development. The analysis should answer the following questions (at a minimum):

1) Are there net tax receipts that would accrue to Sandoval County from new development stimulated by the road or would it result in a net cost to the County, and if, so how much?

2) In the acquisition of right of way, federal land (Bureau of Land Management) could be involved. This would result in a net loss of open space and recreational land to the public. What would be the appropriate mitigation to offset such a significant effect?

3) If growth occurs according to your projections and the highway corridor is needed, other needs besides transportation will come into play. If this BLM land is to be used for a highway corridor, what is the availability of areas for recreation such as hiking, mountain biking and horseback riding in the greater metropolitan area that will be needed to accommodate this growth? What is the current utilization of those areas? Is it realistic to believe that the existing recreational areas will be sufficient? From a planning standpoint, setting this BLM land aside for a highway corridor will bring this issue to the forefront.

4) What would be the impact on water utilization? Although Campbell Farms has filed applications with the State Engineer for permits to appropriate ground water in the east mountain area to serve its proposed developments, those applications have been protested by many individuals and public entities. Those applications have yet to be approved and eventually could be denied based on their potential impact to other water users. Would the approval of this corridor study (through Placitas) make county approval of lots more likely that would later find themselves without water rights?

Inconsistent and Misleading Data

At the meeting we were told that part of the justification for this road was that there are 1400 approved lots between Hwy 165 and Las Huertas Creek and another 500 approved lots north of Las Huertas Creek. It seemed to me that the point of this statement was to show that the Highway Department expects large amounts of additional growth in Placitas. You would not take questions during your presentation so I had to wait almost two hours to finally ask the following question:

How many of those lots that you mentioned are already built on and how many remain to be built on? You said you had not yet obtained that data.

Without that data, the numbers presented are not helpful to understanding the problem. Citing the numbers as you did was uninformative, not relevant to the question and misleading as it caused people to conclude that 1900 approved lots were waiting to be built upon when that number apparently included existing homes.

Further, even assuming much more growth in Placitas from the already approved lots between Hwy 165 and Las Huertas Creek, the logical transportation improvements possibly needed for those lots would seem to be on Hwy 165 and at the I-25 Interchange. However, this is a study to determine the potential location of a corridor to connect I-25 and NM 14. You stated at the outset that Hwy 165 was not being considered as a possible route. Therefore, the citation of approved lots between Hwy 165 and Las Huertas Creek seems to be entirely irrelevant to the corridor study.

Other data cited was the number of additional jobs projected for Albuquerque and Santa Fe. However, there are many places other than the east mountains for people to live who wish to work at the projected jobs. In sum, there was really very little data to support any public need for this road.

A Solution in Search of a Problem

There were several questionable statements in the meeting that attempted to address the public "need" for this road:

1) *"People need to come to Bernalillo from the east mountains to register to vote."*

According to the Sandoval Bureau of Elections, voter registration can be done by mail.

2) *"The Sandoval County sheriff has difficulty getting to the east mountains to provide effective law enforcement."*

Since the road isn't going to be built for ten years, this is a remarkably unsatisfactory solution to inadequate law enforcement. A more reasonable, lower cost and more immediate solution would be to build a substation in the east mountain area. The east mountains have had a Bernalillo County sheriff's substation for some time for precisely the same reason.

3) *"People need to get to work at Intel and along the Paseo del Norte corridor."*

It is a lifestyle choice to move a great distance from work and then choose to commute. No-one gets a job at Intel, buys a house in the east mountains and then discovers how far it is to Intel. If people work at Intel and want a short commute there are copious housing alternatives close by that area. There are literally thousands of existing unimproved residential lots within the Rio Rancho City limits.

Trucks and Connection to I-40

It was stated at the meeting that this will not be a truck route, nor is it the "loop road" to connect I-25 and I-40. However, it is not clear to me why trucks coming from, for example, Farmington, and going to I-40 eastbound wouldn't prefer to use this route through Placitas to get to I-40. While you denied that this would be likely to occur, when the follow up question was asked whether you would be willing to post the road to prohibit trucks you said that could not be done. In the absence of such a prohibition, it is inevitable that the proposed road will be used as a truck route. In fact, on occasion the existing dirt road coming down Las Huertas creek is even used by trucks now. In sum, there needs to be an assessment in the corridor study of the amount of truck use anticipated and how that data was developed.

Potential Segmentation Issue

This corridor study from I-25 to SR-14 appears to be a segmentation of a project to connect I-25 north to I-40 east with a loop freeway. The corridor under study lacks sufficient justification on its own and the statement that it will not be used as a truck route and yet will not be posted to prevent that from happening, is not credible. The highway must satisfy three tests to avoid an allegation of improper segmentation: independent utility, logical endpoints (for both the transportation improvement and the environmental analysis) and not foreclosing alternatives for other possible transportation improvements. There needs to be considerably more justification for this highway's independent utility and logical endpoints than what has been presented to

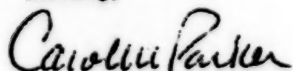
date. The northeast loop freeway project has been mentioned as a proposal for many years. This corridor study appears to be a device to avoid study of the entire northeast quarter loop.

Environmental Justice

It was brought up at the meeting that only 1% of New Mexicans would be able to afford the lots that Campbell Farming would propose to sell. If the corridor study approves a route that could involve condemnation of private land, how does the income of the current private property owners whose land might be condemned compare to those able to afford these expensive lots? What are the environmental justice considerations? Because of the types of maps provided, it was not possible to determine which residential areas were part of a potential corridor. We would appreciate being provided with a map that overlays the potential corridors on the existing roads in Placitas.

Las Placitas Association would like to see these questions answered when the corridor study is completed. Please make sure to put us on the mailing list to receive all future mailings.

Sincerely,



Carol M. Parker, President

Cc: William Sapien, Sandoval County Commissioner
Debbie Hays, Sandoval County Manager
✓ Robert Wessley, Friends of Placitas
Carolyn Appelman, Albuquerque Journal
Pete Rahn, Secretary, New Mexico State Highway and Transportation
Department
Ed Singleton, Bureau of Land Management
Dennis Foltz, Middle Rio Grande Council of Governments
M. "Burt" Snipes, East Mountain Legal Defense Fund

Public Service Company
of New Mexico
Right of Way
Attn: State Engineer
Albuquerque, NM 87100
805 311-4400
Fax: 805 311-5370

December 5, 2000

Mr. Ed Singleton
Field Manager
Albuquerque Field Office
Bureau of Land Management
435 Montano Road, N.E.
Albuquerque, New Mexico 87107

Subject: BLM Exchange with San Felipe and Santo Domingo
Pueblos/ NMNM 101521, NMNM 101522

Dear Mr. Singleton:

On behalf of Public Service Company of New Mexico (PNM), I have written letters to your office in the past regarding the above proposed land exchange, but due to passage of time, and due to the upcoming BLM open house on December 18th related to this matter, I believe another letter is in order to explain PNM's concerns about the planned land exchange.

PNM does not oppose the land exchange, per se, but PNM believes that it is critical that rights of way for ALL existing electric and gas transmission lines (PNM and non-PNM owned) be reserved by the BLM and remain under BLM jurisdiction for the life of each permit. This has been referred to in my past correspondence to your office as the Mid-American Pipeline Company (Mapco) exception. Precedent shows that the BLM has engaged in such land exchanges and reserved jurisdiction of right of way for utilities as it did with Mapco.

PNM believes that it is crucial to the provision of economic and reliable electric and gas service to its customers that the utility right of way corridors between Albuquerque and the Santa Fe area remain under BLM control on the proposed exchanged lands with San Felipe and Santo Domingo Pueblos. However, if for some reason the BLM refuses to retain jurisdiction over the right of way corridors that will be on lands granted to the Pueblos, then at the very least, the BLM should do the following prior to the conveyance to the Pueblos:

- 18-A | 1. Amend all right of way grants to be in perpetuity. This has already been done with some right of way corridors in the affected area.
- 18-B | 2. Mandate that all future right of way payments to the Pueblos will be made strictly in accordance with BLM right of way fee schedules, and not by any other method of calculation.

Response 18-A- All rights of way are in perpetuity and negotiation on the status of these rights-of-way are being negotiated (see Appendix I.)

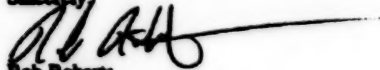
Response 18-B-The BLM does not have authority to set fees for the future on lands going out of federal ownership.

Mr. Ed Singleton
December 6, 2000
Page Two

I ask that you please give serious consideration to abide by the Mapco exception and reserve jurisdiction of the utility right of way corridors with BLM, or ensure that future right of way payments by the utility companies will be in accordance with BLM fee schedules then in effect.

If you have any questions, please feel free to call me at 241-2564.

Sincerely



Rob Roberts
Manager, Right of Way Department

Cc Henry Townsend, PNM

Cc Melvin Christopher, PNM

Cc Ernie C'Debaca, PNM

Cc New Mexico Congressional Delegation through PNM's Governmental
Affairs Office

Cc Steve Anderson, BLM

Cc John Salazar, Rodey Law Firm

Date Received: _____

Comment Number: _____

**SAN FELIPE/SANTO DOMINGO LAND EXCHANGES
SCOPING COMMENT SHEET**

SUBMIT COMMENTS BY:

() Submitted by Mail () Open House, December 2, 1999 () In Person

Please share your ideas, comments, and concerns in the space provided below. Fold this form and submit in the self-addressed envelope. Attach postage, and return to the NEA by December 30, 1999. If you prefer, you may send a letter instead of this comment sheet by December 30, 1999. Please specify in comments which exchange is being addressed. For additional information, please contact:

Bobby Lucero, NEA Albuquerque Field Office
435 Montano NE, Albuquerque, New Mexico 87107
505/761-8787

19

I HAVE HIKED ON THIS LAND AND
I FEEL THAT IT SHOULD REMAIN
IN PUBLIC HANDS.

Response 19-Comment Acknowledged

Last Name NEET First Name ROBIN Initial E
Title (Optional) _____
Organization Name (if applicable) SIPRA CLUB/PAES
Mailing Address (Street/POB/etc) 424 SERENITY CT SE
City AGA State NM Zip Code 87123



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

January 16, 2001.

Mr. Edwin J. Singleton
Field Manager
Bureau of Land Management
Main Conference Room
435 Montana NE
Albuquerque, NM 87107

Dear Mr. Singleton:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality Regulations for Implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Bureau of Land Management (BLM) Santo Domingo Land Exchange Draft Environmental Impact Statement (DEIS). Completing the proposed land exchange would enhance BLM's land ownership consolidation in this area of New Mexico. The exchange would help eliminate and/or reduce conflicts between public land users and private land owners. The Santo Domingo Pueblo would acquire lands that have been identified as having significant traditional cultural values to them.

The EPA rates your DEIS as "LO," i.e., EPA has "Lack of Objections" to the lead agency's preferred alternative. Our classification will be published in the Federal Register according to our responsibility under Section 309 of the Clean Air Act, to inform the public of our views on proposed Federal actions.

We appreciate the opportunity to review the DEIS. We request that you send our office one copy of the Final EIS at the same time that it is sent to the Office of Federal Activities, (2251A), EPA, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20044.

Sincerely yours,

Michael P. Jansky
Michael P. Jansky, P.E.
Regional Environmental Review
Coordinator

ENVIRONMENTAL COORDINATOR**U.S. FISH and WILDLIFE SERVICE
DIVISION of ECOLOGICAL SERVICES**

P.O. Box 1306
Albuquerque, New Mexico 87103

Telephone: (505) 248-6668

Fax: (505) 248-6788

January 14, 2001

To: National Environmental Policy Act (NEPA) Coordinator, Albuquerque Field Office,
Bureau of Land Management, Albuquerque, New Mexico

From: David Dell, Regional Environmental Coordinator, Fish and Wildlife Service,
Albuquerque, New Mexico

Subject: Draft Environmental Impact Statement for the Proposed Santo Domingo Pueblo
Land Exchange (BC# 01/0002)

21 | The U.S. Fish and Wildlife Service has "No Comments" on BC# 01/0002.

APPENDIX A

MISSION OF THE BUREAU OF LAND MANAGEMENT

The Bureau of Land Management (BLM) administers public lands within a framework of numerous laws. The most comprehensive of these laws is the Federal Land Policy and Management Act of 1976 (FLPMA). All Bureau policies, procedures, and management actions must be consistent with FLPMA and the other laws that govern use of the public lands--it is the mission of BLM to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

(BLM is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the need of the American people. Management is based upon the principles of multiple use and sustained yield, a combination of uses that takes into account the long-term needs of future generations for renewable and non-renewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural, scenic, scientific, and cultural values.)

APPENDIX B

ACRONYMS

ACEC	Area of Critical Environmental Concern
ARPA	Archeological Resources Protection Act
ASTM	American Society for Testing and Materials
AUM	animal unit month
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
FLEFA	Federal Land Exchange Facilitation Act (Aug. 20, 1988)
FLPMA	Federal Land Policy & Management Act (1976)
IBLA	Interior Board of Lands Appeal (Department of)
MOU	Memorandum of Understanding
NOD	Notice of Decision
NAGPRA	Native American Grave Protection & Repatriation Act
NEPA	National Environmental Policy Act of 1969
NOEP	Notice of Exchange Proposal
NOI	Notice of Intent
NPS	National Park Service
NTP	Notice to Proceed
PL	Public Law
PNC	Potential Natural Condition
REC	Recognized Environmental Conditions
RMP	Resource Management Plan
ROW	Right-of-Way
R&PP	Recreation and Public Purposes (Act
RPRA	Rio Puerco Resource Area (Albuquerque Field Office)
SARA	Superfund Amendments and Reauthorization Acts (of 1986)
SLO	State Land Office (New Mexico)
SMA	Special Management Area
TUA	Temporary Use Area
USDI	United States Department of the Interior
VRM	Visual Resource Management
WSA	Wilderness Study Area

APPENDIX C
MAJOR LAWS AND REGULATIONS
GOVERNING PROPOSED LAND EXCHANGE AREA EIS
(law/year/summary)

Area of Critical Environmental Concern (ACEC). An area of public land where special management attention is needed to prevent irreparable damage to important historic, cultural or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

American Indian Religious Freedom Act of 1978 (P.L. 95-341). This Act makes it a policy of the government to protect and preserve for American Indians, Eskimos, Aleuts, and Native Hawaiians their inherent right of freedom to believe, express, and exercise their traditional religions. It further directs various Federal agencies, etc., responsible for administering relevant laws to evaluate their policies and procedures in consultation with Native traditional religious leaders to determine changes necessary to protect and preserve Native American cultural and religious practices.

Antiquities Act of 1906 (43 CFR 3, 34 Stat. 225). This act was the first general act providing protection for archeological resources. It protects all historic and prehistoric sites on Federal lands and prohibits excavation or destruction of such antiquities without the permission of the Secretary of the Department having jurisdiction.

Archeological Resources Protection Act (ARPA) of 1979 (P.L. 96-95). This act supplements the provisions of the Antiquities Act and makes it illegal to excavate or remove from Federal or Indian lands any archeological resources without a permit from the land manager. . . those resources excavated from Indian lands remain the property of the Indian or Indian Tribe having rights of ownership over such resources.

BLM's Wilderness Management Policy of 1983. Governs how BLM manages lands administered by BLM which are designated by Congress as part of the National Wilderness Preservation System (established by the Wilderness Act [Act of Sept. 3, 1964]. It applies to public lands specially designated as wilderness by an Act of Congress (it closely parallels the U.S. Forest Service's wilderness management policy).

Clean Air Act (42 U.S.C. 7401) and Amendments of 1970. The main purpose of this act was to . . . "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population. . ." and "to encourage and assist the development and operation of regional air pollution control programs. It requires the EPA to publish national primary standards to protect public health and more stringent national secondary standards to protect public welfare (40 CFR 50). States which are divided into air quality control regions and local governments are responsible for prevention and control of air pollution.

Cooperative Agreement for Range Improvement (4120.3-2). Taylor Grazing Act of specifies the shared cost of a project, and title to a structural or removable project is shared by the United States and the permittee. Title to non-structural or non-removable projects is held solely in the name of the United States.

Endangered Species Act of 1973 (P.L. 93-205). The purpose of this act is to provide protection for animal and plant species that are currently in danger of extinction (endangered) and those that may become so in the foreseeable future (threatened). Section 7 of the act requires Federal agencies to ensure that all federally associated activities within the U.S. do not have adverse impacts on the continued existence of threatened or endangered species or on designated areas (critical habitats) that are important in conserving those species. Agencies must consult with the U.S. Fish and Wildlife Service to determine the potential impacts a project may have on protected species.

Federal Land Exchange Facilitation Act (FLEFA) of August 20, 1988 (amended FLPMA). Contains provisions to facilitate and expedite land exchanges by establishing uniform rules and regulations for appraisals, and procedures and guidelines for resolution of appraisal disputes.

Federal Land Policy and Management Act (FLPMA) of 1976 (P.L. 94-579, 90 Stat. 2743). This law requires several actions including land use planning and coordination with State and local governments. Section 102 (a)(1) states that, "the public lands be retained in Federal ownership, unless as a result of the land use planning procedures provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest."

Interim Management Policy For Lands Under Wilderness Review of 1995. The purpose of the policy is to guide BLM staff in the specific decisions that arise every day in the management of lands under wilderness review.

National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190, as amended by P.L. 94-52 and P.L. 94-83). The main purposes of the act were to declare a national policy which encourages productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and

biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

National Historic Preservation Act (NHPA) of 1966 (P.L. 89-665), as amended (P.L. 95-515). This act establishes as Federal policy the protection of historic sites and values in cooperation with other nations, States, and local governments and establishes a program of grants-in-aid to States for historic preservation activities. Federal agencies are required to consider the effects of their undertakings on historic resources and to give the President's Advisory Council a reasonable opportunity to comment on those undertakings.

Recreation and Public Purposes Act of 1954. Authorizes the Secretary of the Interior (under special conditions) to sell or lease public domain lands to State and local governments and to qualified non-profit organizations for recreation and other public purposes such as campgrounds, schools, fire houses, landfills, parks, law enforcement, facilities etc.

Special Management Areas (SMA). Areas requiring special management by BLM to protect one or more resources values; it may include non-public lands that BLM wishes to acquire or to bring under a Cooperative Management Agreement to better manage the valued resource. Activity plans are prepared for SMAs; the SMAs may be given designations under various existing labels such as "Area of Critical Environmental Concern" or "Research Natural Area." These areas are not necessarily "locked up" from development if the development activity does not conflict with the goals for the area.

Superfund Amendments and Reauthorization Act of 1986 (SARA; P.L. 99-499). This act extensively amends the Superfund Act of 1980. Its major goals include more stringent and better defined cleanup standards, emphasizing remedial actions that permanently and significantly reduce hazardous situations. It requires EPA to revise the Hazard Ranking System to more accurately reflect the degree of risk to human health and the environment. SARA adds damage to natural resources and contamination of ambient air as criteria to be considered in evaluating potential hazards.

Taylor Grazing Act of 1934 (as amended [43 U.S.C. 315]); Section 4 (August 28, 1937 [43 U.S.C. 1181(d)] Range Improvement Permit) Taylor Grazing Act of 1934 (as amended [43 U.S.C. 315]); - The primary purpose of the act was to stop continuing injury to the public rangelands through overgrazing, soil deterioration, and other misuse of the natural resources of this vast area mainly in the West. The act also authorized establishment of grazing district--a total area of 80 million acres--for use of the livestock industry. Grazing permits were issued within each district. And isolated tracts not within a grazing district were leasable, with preference given to adjacent or nearby landowners in the stock raising business.

Grazing Permit (Section 4 Permit) (August 28, 1937 [43 U.S.C. 1181(d)] - means a document authorizing use of the public lands within an established grazing district. Grazing permits specify all authorized use including livestock grazing, suspended use, and conservation use. Permits specify the total number of AUM's apportioned, the area authorized for grazing use, or both.

Wilderness Study Area (WSA); a roadless area or island that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) or the Wilderness Act of 1964 (78 Stat. 891).

APPENDIX D
BIOLOGICAL ASSESSMENT
FOR
PROPOSED SANTO DOMINGO LAND EXCHANGE

TABLE OF CONTENTS FOR APPENDIX D

INTRODUCTION	1
DESCRIPTION OF THE SELECTED ALTERNATIVE (LAND EXCHANGE)	1
SPECIES IDENTIFICATION/DETERMINATION	1
CUMULATIVE IMPACTS	1
TABLE 1 (THREATENED AND ENDANGERED, PROPOSED, AND CANDIDATE SPECIES)	2
SPECIES EVALUATIONS	3
Black-Footed Ferret	3
Southwestern Willow Flycatcher	5
Bald Eagle	8
Mexican Spotted Owl	9
Whooping Crane	11
Mountain Plover	12
Rio Grande Silvery Minnow	14
REFERENCES	16
APPENDIX A - WILDLIFE HABITAT SURVEY	18
APPENDIX B - CONSERVATION EASEMENT	21
APPENDIX C - SPECIAL STATUS SPECIES EVALUATION	24

INTRODUCTION

This Biological Evaluation (Consultation #2-22-00-I-161) has been prepared to analyze the selected alternative as identified in the Environmental Impact Statement (EIS) for the Santo Domingo Land Exchange located in the Albuquerque Field Office (AFO) Bureau of Land Management (BLM). It addresses the exchange of public lands out of federal ownership and evaluates all listed, proposed and candidate species potentially found within Sandoval and Santa Fe Counties (refer to Table 1).

Seven federally listed, proposed, and candidate species are known or have the potential to occur in Sandoval and Santa Fe Counties (USDI, FWS 2000). However, because of the land ownership patterns and the specific habitats used by these species, the animals/plants may occur within the counties but not specifically on public lands within the land exchange area. The potential for these species' presence, their habitats within the area, and any potential impacts on them resulting from implementation of the selected alternative are examined in this document.

DESCRIPTION OF THE SELECTED ALTERNATIVE (EXCHANGE PROGRAM)

The primary objective of this program is to exchange isolated and less manageable public lands (7,376 acres) with other land holders (Santo Domingo Indian Tribe) to help acquire in-holding within wilderness areas and block-up areas of public land that would be more manageable.

SPECIES IDENTIFICATION/DETERMINATION

The AFO has prepared this Document on the threatened, endangered, proposed and candidate species shown in Table 1, as identified by the U.S. Fish and Wildlife Service (FWS).

The BLM has determined, based on this Biological Assessment, that the exchange of public lands will result in the following determinations for all the listed, proposed, or candidate species: "No Affect" (refer to Table 1).

CUMULATIVE IMPACTS

Cumulative effects are those effects of future non-federal (State, local government, or private) activities on endangered and threatened species or critical habitat that are reasonably certain to occur in the foreseeable future. The following are those non-federal actions that may affect those species and/or their habitats. These actions include: recreation uses, private subdivisions, livestock grazing, agriculture, resource extraction, silviculture and road construction. Refer to the species evaluation section for an analysis of cumulative impacts for each species.

SPECIES EVALUATIONS

Black-Footed Ferret (*Mustela nigripes*)

This species is usually associated with prairie dog towns in grassland plains, semi-arid grasslands and adjacent mountain basins. The black-footed ferret historically occurred over most of New Mexico (USDI, BLM 1984). The last confirmed sighting in New Mexico was in 1934 (USDI, BLM 1995). No black-footed ferrets are known to exist other than the captive and reintroduced populations in Wyoming, Montana, South Dakota, and Arizona. However remnant populations may still exist in portions of the former range (*ibid*).

The best information available indicates that the black-footed ferret is extirpated from the wild in New Mexico (NMDG&F 1996, 1998). However, in 1998, a captive breeding project was initiated in New Mexico at the Vermejo Park Ranch near Raton, New Mexico.

The most recent information from the FWS (USDI, FWS 1989, 2000) indicates that prairie dog towns of the following sizes are necessary to maintain a black-footed ferret population: (a) 80 acres for black-tailed prairie dogs, and (b) 200 acres for Gunnison's prairie dogs.

An evaluation for the presence of prairie dog colonies to support black-footed ferrets was conducted within the area (USDI, BLM 2000-Refer to Appendix A). No prairie dog colonies of size necessary to support black-footed ferrets were identified within the area.

TABLE 1
THREATENED AND ENDANGERED, PROPOSED, AND CANDIDATE SPECIES

Species	Classification	Determination of Affect	County
<u>Mammals</u>			
black-footed ferret	Endangered	No Affect	(Both)
<u>Birds</u>			
Southwestern willow flycatcher	"	No Affect	(Both)
bald eagle	Threatened	No Affect	(Both)
Mexican spotted owl	"	No Affect	(Both)
whooping crane	Nonessential Experimental	No Affect	(Both)
mountain plover	Proposed Threatened	No Affect	(Both)
<u>Fish</u>			
Rio Grande silvery minnow	Endangered	No Affect	(Both)

It appears from the available literature that grazing (including intense use) does not have a negative impact on prairie dog colonies. In fact, some literature sources support grazing because it seems to increase the density of prairie dog colonies. In particular, black-tailed prairie dogs have been shown to prefer areas with short vegetation cover, which apparently allows them to view predators and maintain a complex social system (Fagerstone and Ramey 1996-1). Rates of prairie dog colony settlement and expansion have been shown to increase under intense livestock grazing and other human disturbance such as homesteading, fencing, cultivation, and the construction of water impoundments (*ibid.* 1996-2). All of these land management practices reduce the height and density of grasses, and provide a desirable environment for prairie dogs to expand and establish new colonies. Fagerstone and Ramey (1996-3) found that prairie dog burrow densities in the Conata Basin of South Dakota increased twice as fast on sites grazed by cattle as on ungrazed sites.

Prairie dog colonies modify the grasslands in a similar manner as grazing cattle do, by their feeding activities. The rodents depend on being able to see terrestrial predators from a distance (*ibid.* 1996-1) and modify vegetation by feeding on grasses and clipping unpalatable plants to ground level (*ibid.* 1996-4). In well-established prairie dog colonies, large areas of bare soil are common (*ibid.* 1996-5).

Prairie dogs were widespread on the Plains throughout the 1800s, being estimated to cover 283 million hectares (about 700 million acres) and to number over 5 billion (*ibid.* 1996-6). To control prairie dog numbers, rodenticides were developed; in the early 1900s millions of hectares were treated with grains containing strychnine and other poisons, significantly reducing prairie dog numbers and eliminating most large colonies. By 1919, after 20 years of control efforts, the area occupied by prairie dogs was reduced to an estimated 40.5 million hectares (100 million acres; *ibid.* 1996-7). In 1971 the estimated occupied areas in the United States was only 566,000 hectares (1.4 million acres; *ibid.* 1996-8). Before that year, these control efforts eliminated approximately 99.8 percent of the prairie dog population in the United States. From the available literature, it appears the decline in prairie dog colonies, and consequently the black-footed ferret throughout the west, was related to federal, state, and local poisoning programs. Also, land use practices reduced available habitat by converting vast areas of the Great Plains to agriculture and urban areas.

The prairie dog population within AFO lands appears to be stable; however, colony sizes fluctuate up and down on a regular basis, mainly due to plague that occurs throughout New Mexico. Plague appears to be the limiting factor in controlling the size of prairie dog colonies within the AFO.

Baseline Data

- ◆ Historically, large prairie dog towns occurred throughout New Mexico and probably in Sandoval and Santa Fe counties. Due to widespread poisoning programs and habitat alterations of prairie dog colonies, primarily for agricultural and grazing purposes, suitable habitat for the black-footed ferret was basically eliminated from the state.
- ◆ No black-footed ferrets are known to exist other than the captive and reintroduced populations in Wyoming, Montana, South Dakota, Arizona and New Mexico. The best information available indicates that the black-footed ferret is apparently extirpated from the wild in New Mexico.

Affect Determination

Based on the analysis that no habitat exists (e.g., large prairie dog colonies) necessary to support this species within the area, the BLM has determined that implementation of the land exchange identified within the EIS would result in a "No Affect" situation for the black-footed ferret.

Rationale

- ◆ No black-footed ferrets are known to exist outside of the captive and reintroduced populations in Wyoming, Montana, South Dakota, Arizona and New Mexico. The best information available indicates that the black-footed ferret is apparently extirpated from the wild in New Mexico.
- ◆ No habitat (prairie dog colonies) necessary to support this species has been identified on BLM-administered lands within the affected area.
- ◆ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (Refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the area to support the Black-footed Ferret.

Because the proposed action (land exchange) has a "No Affect" for the Black-footed Ferret, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

The Southwestern willow flycatcher is found along riparian habitats (e.g., rivers, streams and wetlands) of the desert Southwest where dense groves of willows (e.g., *Salix*, *Baccharis* spp.), arrowweed, buttonbrush, boxelder and alder are present, often with a scattered overstory of cottonwood (Tibbitts *et al.* 1994). In some locations, exotic plants including tamarisk and Russian olive are also used for nesting. The bird is associated with multi-layered vegetation in close proximity to slack water. The surrounding vegetation of the nesting areas generally ranges from 12 to 21 feet high (*ibid*). Southwestern willow flycatchers breed in habitat where surface water is present (Sferra *et al.* 1995).

Historically the Southwestern willow flycatcher nested along the major river systems in northern New Mexico. However, as the result of riparian degradation during the past century, very little habitat remains. An evaluation for riparian/wetland habitats to support Southwestern willow flycatchers was conducted within the land exchange area (USDI, BLM 2000-Refer to Appendix A). No current or potential riparian/wetland areas needed to support Southwestern willow flycatchers were identified.

Baseline Data

- ◆ Historically the Southwestern willow flycatcher nested along the major river systems in northern New Mexico.
- ◆ No habitats (e.g., riparian/wetland areas) have been identified on BLM-administered lands that would support the Southwestern willow flycatcher within the land exchange area.

Affect Determination

Based on the analysis that no current or potential habitat (e.g., riparian/wetland areas) needed to support this species exists within the exchange area, the BLM has determined that implementation of the proposed action (land exchange) identified in the EIS would result in a "No Affect" situation for the Southwestern willow flycatcher.

Rationale

- ◆ No current or potential habitat (e.g., riparian/wetland areas) to support the Southwestern willow flycatcher have been identified on BLM-administered lands within the land exchange area.
- ◆ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the land exchange area to support the Southwestern willow flycatcher.

Because the proposed action (land exchange) has a "No Affect" for the Southwestern willow flycatcher, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Ongoing Actions

In March, 1997, the BLM completed Section 7 consultation (#2-22-95-I-410) on the Rio Puerco Resource Management Plan for the Southwestern willow flycatcher. The FWS attached seven Conservation Recommendations (CR) to the non-jeopardy opinion. The implementation of the seven conservation recommendations are as follows:

- ◆ CR-1 Continue flycatcher surveys

The 1998 and 1999 flycatcher surveys were completed as part of a challenge cost sharing agreement with Hawks Aloft. All currently potential and short-term potential habitat areas were surveyed three times during the nesting season according to protocol. This will continue to be an ongoing annual effort for those currently potential and short-term potential habitat areas. Migrating flycatchers have been observed during several of the surveys, but no nesting activity has been identified.

- ◆ CR-2 No livestock grazing should occur within areas considered unoccupied, currently potential flycatcher habitat as well as any areas that become occupied by flycatchers from April 15 to August 15

Bluewater Creek ACEC is the only area that is considered unoccupied, currently potential flycatcher habitat within AFO lands. The area has no grazing year-long. No other areas have become occupied by the flycatchers.

- ◆ CR-3 No habitat-modifying or vegetative manipulation activities should occur within areas considered unoccupied, currently potential flycatcher habitat. In all other areas, removing vegetation/planting non-native species would require consultation

Bluewater Creek ACEC is the only area that is considered unoccupied, currently potential flycatcher habitat within AFO lands. No habitat or vegetative manipulation is occurring within the Bluewater Creek ACEC. In other flycatcher habitats, planting of native vegetation is occurring on a regular basis. Planting of native vegetation (willows, cottonwoods) is an ongoing effort to restore riparian habitat on lands managed by the AFO.

- ◆ CR-4 Summarize trend information so that uplands can be better assessed

In 1998 all of the lotic (running water) segments within the resource area were reevaluated for Properly Functioning Condition. Beginning in July, 1998, an environmental process (EA) was initiated to determine conditions of all grazing allotments, including those with riparian habitat. This EA process will take several years due to the large number of allotments, but will help in the future to summarize upland information and the recovery of riparian communities.

- ◆ CR-5 Develop a management plan for the flycatcher in the interim until a recovery plan has been completed

The Albuquerque Field Office, Southwestern Willow Flycatcher Management Plan was completed and implemented in 1998.

- ◆ CR-6 Assess the impacts of winter grazing in riparian habitat

In 1997, a riparian enclosure was established within the Lost Valley riparian pasture. In 2000, a riparian enclosure will be established in the Azabache Riparian pasture, to evaluate winter grazing within the allotments.

- ◆ CR-7 Continue fencing riparian areas to exclude livestock grazing and track vegetative trends

In 1998, the BLM finished fencing the Coal Creek Allotment, and established a riparian pasture in the Azabache Allotment to protect these riparian areas. As part of a Habitat Management Plan/Environmental Impact Statement (HMP/EIS) for all riparian areas within the AFO, the BLM will be establishing protective measures for all riparian areas identified during the process. The HMP/EIS is anticipated to be completed in the summer of the year 2000.

Bald Eagle (*Haliaeetus leucocephalus*)

Bald eagles are generally associated with medium to large perennial streams, rivers and other water bodies that provide an adequate prey base and appropriate nesting/roosting habitat. Outside of the major river corridors (e.g., Rio Grande, Chama), the bald eagle has been observed to be a migrant only, due to the lack of any large streams, rivers or water bodies.

An evaluation for riparian/wetland habitats to support bald eagles was conducted within the land exchange area (USDI, BLM 2000-Refer to Appendix A). No foraging habitat (e.g., rivers/streams/waterbodies) or roosting habitat (e.g., large trees) needed to support bald eagles were identified.

The breeding population of bald eagles has historically been low, although New Mexico does provide habitats for wintering and migration. Food availability is a major factor influencing bald eagle distribution. Fish is generally considered the preferred prey base for bald eagles. However, waterfowl (particularly dead or crippled individuals), dead livestock, rabbits and small mammals can be used as a prey base for a wintering population.

Bald eagles have been observed migrating seasonally through the general area, however, with no habitat to support nesting/roosting (e.g., large trees) or foraging (e.g., streams/rivers/waterbodies), they are not expected to use any of the area.

The bald eagle population is in an upward trend throughout the United States. In July 1994, the FWS proposed to reclassify the bald eagle from endangered to threatened in the lower 48 states, including the southwestern region and Mexico. On August 11, 1995, this reclassification took place.

Baseline Data

- ◆ No habitats (e.g., rivers/streams/waterbodies) have been identified on BLM-administered lands that would support bald eagles within the land exchange area.
- ◆ Bald eagles are known to migrate seasonally through Sandoval and Santa Fe Counties, but due to the lack of appropriate habitat on BLM-administered lands within the exchange area, no use of these lands is anticipated.

Affect Determination

Based on the analysis that no habitats exists (e.g., streams/rivers) to support this species within the land exchange area, the BLM has determined that implementation of the proposed action (land exchange) identified in the EIS would result in a "No Affect" situation for the bald eagle.

Rationale

- ◆ No habitats (e.g., streams/rivers/waterbodies) have been identified on BLM-administered lands that would support the bald eagle within the land exchange area.

- ◆ Bald eagles are known to migrate seasonally through Sandoval and Santa Fe Counties, however, with no habitat to support nesting/roosting (e.g., large trees) or foraging (e.g., streams/rivers/waterbodies), they are not expected to use any of the area.
- ◆ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the land exchange area to support the bald eagle.

Because the proposed action (land exchange) has a "No Affect" for the bald eagle, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Mexican Spotted Owl (*Strix occidentalis lucida*)

The Mexican spotted owl occupies mountainous areas, with its preferred habitat consisting of dense, multi-storied forests with moderately closed to closed canopies. In addition, these owls have been found in canyon systems with little or no tree cover (USDI, FWS 1993). These canyon systems appear to provide the same or similar microclimate as the dense multi-storied forests.

Historically northern New Mexico contained forest stands that no longer exist today. Beginning in the 1800s homesteaders, owners of land grants, and private logging companies removed most of large commercial timber from the area. These past forestry practices have resulted in a lack of any dense, old-growth forests remaining.

An evaluation for forest/canyon habitats to support Mexican spotted owls was conducted within the exchange area (USDI, BLM 2000-Refer to Appendix A). No habitat was identified that would support Mexican spotted owls. The woodland habitat is comprised entirely of scattered piñon-juniper stands, with no canyon habitat occurring within the area. The Mexican Spotted Owl Recovery Plan (USDI, FWS 1995) does not contain specific guidelines for piñon-juniper habitats, which are considered as "Other Forest and Woodland Types" in the plan.

No critical habitat has been designated by the FWS on any BLM lands within any of the exchange area.

Baseline Data

- ◆ Historically northern New Mexico contained forest stands that no longer exist today. From the 1800s, homesteaders, owners of land grants, and private logging companies removed most of large commercial timber within the area. As the result of these historic forest practices, no habitats that meet the criteria to support this species have been identified on BLM-administered lands within the Albuquerque Field Office.
- ◆ No specific guidelines have been established for piñon-juniper habitats, which are considered as "Other Forest and Woodland Types" within the U.S. Fish and Wildlife Service's Mexican spotted owl recovery plan.
- ◆ No habitats (e.g., forest/canyon) exists on BLM-administered lands necessary to support this species within the exchange area. All of the woodland habitat is comprised of scattered piñon-juniper stands.

Affect Determination

Based on the analysis that no habitats exists (e.g., forest/canyon) to support this species within the exchange area, the BLM has determined that implementation of the Santo Domingo exchange identified in the EIS would result in a "No Affect" situation for the Mexican spotted owl.

Rationale

- ◆ No habitat (e.g., forest/canyon) exists on BLM-administered lands to support this species within the exchange area. All of the woodland habitat is comprised of piñon-juniper stands.
- ◆ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation

easement would protect the existing wildlife habitats on 6,105 acres (Refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the exchange area to support the Mexican spotted owl.

Because the proposed action (land exchange) has a "No Affect" for the Mexican spotted owl, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Whooping Crane (*Grus americana*)

The whooping crane breeds mainly at Wood Buffalo National Park, Canada and winters mainly along the Gulf Coast of Texas at the Aransas National Wildlife Refuge. A few whooping cranes raised by foster parents (sandhill cranes) at Grays Lake, Idaho still migrate with sandhill cranes to the Rio Grande Valley, New Mexico. These birds (2 to 4 in number) winter mainly in the Bosque del Apache National Wildlife Refuge, located approximately 20 miles south of Socorro, New Mexico. This population is designated as a non-essential experimental population.

Whooping cranes select an open expanse of shallow water in rivers, lakes, reservoirs and native wetlands for nightly roosting. Feeding sites include the same wetland types as those used during roosting and agricultural fields. The whooping crane typically roosts on sand bars within the Rio Grande flood-plain (NMDG&F 1988, 1995). Whooping cranes seasonally move up and down the Rio Grande corridor during their spring and fall migrations; however, they would be considered rare visitors to the area.

An evaluation for riparian/wetland habitats to support whooping cranes was conducted within the land exchange area (USDI, BLM 2000-Refer to Appendix A). No riparian/agricultural habitat was identified on BLM-administered lands within the land exchange area.

Baseline Data

- ♦ Historically whooping cranes did not use the Rio Grande Valley for migration; only as the result of a fostering program some birds have migrated with the sandhill crane population, which does use the Rio Grande Valley extensively. This population is designated as a non-essential experimental population.
- ♦ Within New Mexico, the whooping crane is associated with agricultural fields and valley pastures, particularly where there is waste grain or sprouting crops.

Affect Determination

Based on the analysis that no habitat exists (e.g., rivers/streams) to support this species within the land exchange area, the BLM has determined that implementation of the proposed action (land exchange) identified within the EIS would result in a "No Affect" situation for the whooping crane.

Rationale

- ♦ Whooping cranes would be considered rare migrants to land exchange area. This population is designated as a non-essential experimental population.
- ♦ No suitable or potential riparian/agricultural habitat occurs on lands administered by the BLM Albuquerque Field Office within the land exchange area.
- ♦ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the land exchange area to support whooping cranes.

Because the proposed action (land exchange) has a "No Affect" for whooping cranes, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Mountain Plover (*Charadrius montanus*)

The mountain plover prefers flat, short-grass prairie and tends to avoid taller grasses and hillsides (USDI, BLM 1995). Suitable habitat occurs in areas often grazed by livestock (*ibid*). The bird prefers habitat comprised of large areas of bare ground and short grass (less than 4-inch-tall stubble). Prairie dog towns and turf farms are likely areas of use. Outside the breeding season, this species occurs in flocks of individuals up to several hundred feeding in alkaline flats, plowed ground, sprouting grain fields and grazed pastures (Terres 1982). Short vegetation, bare ground, and a flat topography are now recognized as habitat-defining characteristics (USDI, FWS 1999). In addition to using prairie dog towns, mountain plovers show a strong affiliation with sites that are heavily grazed by domestic livestock (e.g., near stock watering tanks)(*ibid*).

The mountain plover has been identified in numerous locations throughout northern New Mexico during surveys by the New Mexico Department of Game and Fish in 1995 (Williams 1995). The bird is likely to occur throughout the AFO in areas of short-grass prairie. No critical habitat has been established.

An evaluation for habitat to support Mountain Plovers was conducted within the exchange area (USDI, BLM 2000-Refer to Appendix A). The area is comprised of rolling hills with scattered piñon-juniper woodlands and would not be considered habitat for the Mountain Plover.

Baseline Data

- ♦ Habitat destruction, primarily resulting from the conversion of prairie ecosystems to agricultural croplands, has been the primary cause of long-term population declines. In the late 1800s this species was also subjected to market hunting.
- ♦ The current nesting range is restricted to small populations in parts of California, Montana, Wyoming, Colorado, Oklahoma, and New Mexico.
- ♦ Mountain plovers are successful in using areas grazed by livestock, in fact they preferred areas where grazing livestock/wildlife maintain the ground cover at a short stubble height.

Affect Determination

Based on the analysis that no habitat exists to support this species within the land exchange area, the BLM has determined that implementation of the proposed action (land exchange) identified within the EIS would result in a "No Affect" situation for the mountain plover.

Rationale

- ♦ Flat short-grass prairies (preferred habitats) do not occur within the area. The habitat within the area consists of rolling hills with scattered piñon-juniper woodlands, and would not be considered habitat for the mountain plover.
- ♦ Mountain plover habitat is not limited on other AFO lands, and is found throughout the area on BLM-administered and adjacent state and private lands. A mosaic of vegetation and bare ground occurs throughout the AFO lands.
- ♦ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No habitat exists within the land exchange area to support the mountain plover.

Because the proposed action (land exchange) has a "No Affect" for mountain plover, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

Rio Grande Silvery Minnow (*Hybognathus amarus*)

The Rio Grande silvery minnow is found in the middle Rio Grande, from Cochiti Dam to the headwaters of Elephant Butte Reservoir. This area has been designated as proposed critical habitat. However, surveys in recent years have identified that the majority of the population now occurs only within the immediate headwaters of Elephant Butte Reservoir.

This species is localized within an area in which the BLM does not administer lands within the habitat of the Rio Grande silvery minnow nor manage any of the waters of the Rio Grande within this area.

An evaluation for riparian/wetland habitats to support Rio Grande silvery minnow was conducted within the land exchange area (USDI, BLM 2000-Refer to Appendix A). No riparian/wetland habitat was identified on BLM-administered lands within the land exchange area.

The AFO is aggressively protecting and enhancing (e.g., fencing, planting) riparian habitats along the tributaries to the Rio Grande that occur on BLM-administered lands (e.g., Rio Puerco, Rio Salado). The agency's goals to restore these habitats to properly functioning condition, not only to benefit the Rio Grande silvery minnow but for many other wildlife species and resource values (e.g., limiting soil erosion).

Baseline Data

- ♦ The Rio Grande silvery minnow is found in the middle Rio Grande, from Cochiti Dam to the headwaters of Elephant Butte Reservoir. However, surveys in recent years have identified that the majority of the population now occurs only within the immediate headwaters of Elephant Butte Reservoir.
- ♦ Water availability appears to be the main limiting factor jeopardizing this species. The Rio Grande has dried up numerous times, due mainly to irrigation operations, over the past several decades.
- ♦ The BLM does not administer lands within the habitat of the Rio Grande silvery minnow nor manage any of the waters of the Rio Grande within this area.

Affect Determination

Based on the analysis that no habitat exists to support this species within the land exchange area, the BLM has determined that implementation of the proposed action (land exchange) identified within the EIS would result in a "No Affect" situation for the Rio Grande silvery minnow.

Rationale

- ♦ Known distribution of the Rio Grande silvery minnow in New Mexico is limited (Cochiti Dam to Elephant Butte Reservoir). However, surveys in recent years have identified that the majority of the population now occurs only within the immediate headwaters of Elephant Butte Reservoir. The AFO does not administer any public lands or authorize any activities within or adjacent to known habitats of this species.
- ♦ A majority of the Bureau of Land Management (BLM) lands being conveyed (83%) are subject to a conservation easement that restrict activities such as: extraction of minerals, oil and gas development, construction of homes/subdivision, and other surface and sub-surface disturbing actions. This conservation easement would protect the existing wildlife habitats on 6,105 acres (refer to Appendix B) for a complete description of the restrictions/reservations). The remaining 1,271 acres would be allowed to be developed for (e.g., mining, subdivisions).

Cumulative Impacts

No current or potential habitat exists within the land exchange area to support the Rio Grande silvery minnow.

Because the proposed action (land exchange) has a "No Affect" for the Rio Grande silvery minnow, there would be no incremental increase in the existing or foreseeable future cumulative impacts within the AFO for this species. The cumulative impacts presently existing (e.g., federal, private, state activities) for this species would not change due to this action.

REFERENCES (For Appendix D)

- Fagerstone, K.A., and Ramey, C.A. 1996. "Rodents and Lagomorphs," pp 83-132
in Krausman, ed. Rangeland Wildlife. The Society for Range Management, Denver, CO.
- 1 Slobodchikoff and Coast 1980
 - 2 Osborn and Allan 1949, Uresk et al. 1982, Cincotta 1985, Snell 1985,
Cincotta et al. 1987.
 - 3 Uresk et al. 1982.
 - 4 King 1955, Koford 1958.
 - 5 Knowles 1982.
 - 6 Seton 1929.
 - 7 Nelson 1919.
 - 8 Cain et al. 1972.
- New Mexico Department of Game & Fish (NMDG&F). 1988.
Handbook of Species Endangered in New Mexico. Santa Fe, NM.
- _____. 1995
BISON-M (Biota Information System of New Mexico). Biological Database for New Mexico. Done in cooperation with the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Reclamation, U.S. Forest Service, and the University of New Mexico. Santa Fe, NM.
- _____. 1996
BISON-M (Biota Information System of New Mexico). Biological Database for New Mexico. Done in cooperation with the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Reclamation, U.S. Forest Service, and the University of New Mexico. Santa Fe, NM.
- _____. 1998
BISON-M (Biota Information System of New Mexico). Biological Database for New Mexico. Done in cooperation with the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Reclamation, U.S. Forest Service, and the University of New Mexico. Santa Fe, NM. (March 26, 1998)
- Sferra, S.J., R.A. Meyer, and T.E. Corman. 1995.
Arizona Partners in Flight 1994 southwestern willow flycatcher survey. Non-game and Endangered Wildlife Program Technical Report 69. Phoenix, Arizona. Arizona Game and Fish Department.
- Sivinski, R., and K. Lightfoot. 1995.
Inventory of Rare and Endangered Plants of New Mexico. New Mexico Energy, Minerals, and Natural Resources Department, Forestry and Resources Conservation Division, Santa Fe, New Mexico.
- Terres, J.K. 1982.
The Audubon Society Encyclopedia of North American Birds. A.A. Knopf, Inc. New York, NY.
- Tibbitts, T.J., M.K. Sogge, and S.J. Sferra. 1994.
A Survey Protocol for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*). National Park Service Technical Report D-122. Denver, CO. National Park Service.
- U.S. Department of Interior, Bureau of Land Management (USDI, BLM). 1984.
Handbook of Methods for Locating Black-Footed Ferrets. Wyoming BLM Wildlife Technical Bulletin No. 1, BLM-WY-PT-84-006-4350 Rev 88. Cheyenne, WY.
- _____. 1995.
Draft Biological Assessment for the Mid-American Four Corners Pipeline Loop Project. #4669-001-600. Farmington District, ENSR Consulting and Engineering.
- _____. 2000.
Wildlife Habitat Assessment (Santo Domingo Land Exchange) Albuquerque Field Office, Albuquerque, NM. March 1, 2000.
- U.S. Department of Interior, U.S. Fish and Wildlife Service (USDI, FWS). 1989.
Black-Footed Ferret Survey Guidelines for Compliance with the Endangered Species Act. Denver, CO, and Albuquerque, NM.

- _____. 1993.
"Endangered and Threatened Wildlife and Plants: Final Rule to List the Mexican Spotted Owl as a Threatened Species". Federal Register. (50 CFR Part 17), Vol.58, No. 49:14248-14271. March 16, 1993.
 - _____. 1995.
Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*). Vol.I. Albuquerque, NM.
 - _____. 1999.
Proposed Threatened Status for the Mountain Plover. Federal Register: Proposed Rule, February 16, 1999 (Volume 64, Number 30)
 - _____. 2000.
New Mexico County List Endangered, Threatened, and Candidate Species and Species of Concern. U.S. fish and Service, New Mexico Ecological Services Field Office, Albuquerque, NM. (March 3, 2000)
- Williams, Sandy. November 1995.
New Mexico Department of Game & Fish, Santa Fe, New Mexico. Personal communication with Jim Silva, Resource Advisor, BLM Albuquerque District.

Appendix A
Field Trip Survey-Wildlife Habitat
San Felipe and Santo Domingo Land Exchanges

James B. Silva (Wildlife/T&E Specialist) and McKinley Ben Miller (Riparian/Forestry Specialist) conducted a field trip to the two land exchange areas on March 1, 2000 to conduct a survey of existing wildlife habitats within the areas. Surveying for habitat associated with the following species was of particularly importance during the field trip due to their potential presence within Sandoval and Santa Fe Counties (FWS 2000)

Species	Status
#1 - Black-Footed Ferret	Endangered
#2 - Mexican Spotted Owl	Threatened
#3 - Southwestern Willow Flycatcher	Endangered
#4 - Bald Eagle	Threatened
#5 - Whooping Crane	Nonessential experimental population
#6 - Mountain Plover	Proposed Threatened
#7 - Rio Grande Silvery Minnow	Endangered

The following were those specific habitat components that were surveyed for based on habitat preference of the potential Special Status Species occurring within the area.

- ♦ Forest (ponderosa pine/fir/mixed conifer) habitats - #2
- ♦ Canyon habitats - #2
- ♦ Flat open grassland/prairie habitats - #1 and 6
- ♦ Riparian/wetland/Aquatic habitats - #3, 4, 5 and 7
- ♦ Prairie dog colonies - #1 and 6

Species/Habitat Evaluations

Forest-Canyon Habitats:

Survey Data: No ponderosa pine, fir or mixed conifer habitat was identified within the areas. The areas consists of rolling hills with an evenly scattered over story of piñon-juniper (See photos #1 and #2). The low lying areas in between the rolling hills consisted of ephemeral arroyos that were a few feet to 100 feet deep. There are three large arroyos that bisect the San Felipe Exchange area (Arroyo del Tonque, Arroyo Coyote and Arroyo de la Vega de los Tanos) and one large arroyo the bisects the Santo Domingo Exchange area (Arroyo Largo). The Arroyo del Tonque provides some of the best canyon habitat within both of the areas. The canyon is approximately 50-75 foot deep and from 25 to 100 feet wide with some vertical but mostly broken rock walls. However, the canyon contained no micro-climate habitat that is associated with Mexican Spotted Owl use of canyons.

Flat open grassland/prairie habitats:

Survey Data: No flat grassland/prairie habitat was identified within the areas. The areas consists of rolling hills with an evenly scattered over story of piñon-juniper (See photos #1 and #2). The low lying areas in between the rolling hills consisted of ephemeral arroyos that were a few feet to 100 feet deep. There were some small (<1 acre) tracts that occurred around some of the windmills that were generally flat and open with no tree cover. However, these areas were so small and widely scattered that no use of these small tracts would be expected.

Riparian-Wetland-Aquatic Habitats:

Survey Data: No riparian/wetland/Aquatic habitat of the size necessary to support Southwestern willow flycatchers, bald eagle, whooping crane or Rio Grande silvery minnow were identified within the areas. Within the two land exchange areas, artificial waters (wind mills) are present and several have small overflow ponds (20X20 feet) in size. The remainder of the areas consists of ephemeral arroyos that are a few feet to 100 feet deep. There are three large arroyos that bisect the San Felipe Exchange area (Arroyo del Tonque, Arroyo Coyote and Arroyo de la Vega de los Tanos) and one large arroyo the bisects the Santo Domingo Exchange area (Arroyo Largo). All of these arroyos as well as the smaller ones would have running water only during spring snow melt or during intense summer rain storms. The Arroyo del Tonque is approximately 50-75 foot deep and from 25 to 100 feet wide with some vertical but mostly broken rock walls. This arroyo contained some surface water (at the time of the survey) and one lone cottonwood tree (20-30 years old) at one location. However, no other riparian vegetation was observed within this area of the tree or along the remainder of the channel. At the head of the Arroyo del Tonque a windmill with an overflow pond does exist. It is speculated that the water in the arroyo may be seeping from the pond or downhole in the windmill and that due to the impervious rock layers along the canyon floor, that the water is brought to the surface at this one location.

Prairie dog colonies:

Survey Data: No sign of prairie dog colonies were identified within the two areas. No flat grassland/prairie habitat was identified within the areas that would support prairie dog colonies. The area consists of rolling hills with an evenly scattered over story of piñon-juniper (See pictures #1 and #2). The low lying areas in between the rolling hills consisted of ephemeral arroyos that were a few feet to 100 feet deep. There were some small (<1acre) tracts that occurred around some of the windmills that were generally flat and open with no tree cover. However, none of these areas showed any signs of prairie dog use. The soils in the area consists of gravelly/rocky substrate with very shallow soils, which are not conducive for digging rodents, refer the foreground in photos #1 and #2, and photo #3.

Appendix B
Reservation of Conservation Easement

Provided, however, that the lands conveyed herein, *except* those lands situated in the W½ of Section 25 and in Sections 26 and 35, Township 14 North, Range 6 East NMPM (which are herein referred to as the "Excepted Lands"), shall forever be subject to the following Restrictions, which are intended to preserve such lands in their natural state for the benefit of Grantee and its members, and Grantor shall retain forever the right to enforce such Restrictions, as set forth herein:

Restrictions: The Grantee shall have no right to conduct, or to allow any other persons or entity to conduct, any of the following activities on or with respect to any of the lands that are subject to these provisions (which lands are hereinafter referred to as the "Subject Lands"):

1. The storage, dumping, disposal, release or other use of toxic and/or hazardous materials or the storage, dumping, disposal or release of non-compostable refuse.
2. Any filling, excavating, dredging, mining, drilling and exploration for or extraction of any minerals, hydrocarbons, soils, sand, gravel, rock or other materials on or below the surface; except that nothing herein shall pertain to the activities of any utility company that is granted a valid right-of-way across the lands conveyed herein or any portion of them for installation of one or more utility lines for the transmission of electrical power, telecommunications service or natural gas, provided that Grantee shall consult with Grantor with respect to: a) the location of any proposed utility right-of-way affecting the Subject Lands, and b) the necessary restoration of lands affected by construction activity on such right-of-way and adjacent lands, prior to consenting to such right-of-way; nor shall anything herein preclude Grantee or any member of Grantee from taking clay or other soils or materials from any of the lands conveyed herein for their use in making pottery, or for any other traditional craft or religious purpose.
3. Any division, subdivision or *de facto* subdivision of the property.
4. Construction of roads.
5. Severance or transfer of any water rights attached to the property.
6. Construction or placement of any buildings, whether permanent or temporary, living quarters of any sort, mobile homes, signs, billboards or other advertising materials, or utility towers or other structures.

Rights of Enforcement: Grantor, through the Bureau of Indian Affairs or its successor agency, shall have the right to enter upon the Subject Lands to enforce the provisions of these Restrictions, and to determine that Grantee's activities are in compliance therewith, all upon prior notice to Grantee and in a manner that does not unreasonably disturb the use of the property by Grantee, consistent with the terms of these Restrictions. Grantor shall also have the right of immediate entry upon the Subject Lands if, in its sole judgment, such entry is necessary to prevent damage to or the destruction of the values protected by these Restrictions. Grantor shall further have the right to take any appropriate legal measure to enjoin any activity on or any use of the property by Grantee or any of its members or any person or entity purporting to act under its permission or authority that is in clear violation of these Restrictions and to enforce the restoration of such areas or features of the Subject Lands that may have been damaged by such activities.

General Provisions: Nothing herein shall be construed as affording to any member of the public any access or right of access to any portion of the lands conveyed herein, or as authorizing Grantor to grant any such right of access to any third person without the express prior written consent of Grantee.

The provisions of these Restrictions and Reservations shall be liberally construed to effectuate their purposes of conserving important habitat for wildlife, to protect rare or unique native plants now or later identified, to conserve the diverse vegetative communities and the wildlife inhabiting these communities, and to preserve the Subject Lands in their present, substantially undisturbed natural state, with significant topological and open-space values, in perpetuity, but without interfering with any uses of the property by the Grantee consistent with the conservation values that are protected hereby. Nothing herein shall be deemed to limit or affect Grantee's right to utilize the surface and/or minerals on or under the Excepted Lands, in such manner as Grantee chooses, including the right to lease or permit to third parties the right to utilize the surface and minerals on or under such lands in any manner that Grantee might, but Grantee shall have no right to utilize or conduct any activities on the Excepted Lands, or to permit any third party to utilize or conduct any activities on the Excepted Lands, that would cause a violation of any of the above-stated Restrictions with respect to the Subject Lands, and Grantor shall have the right reasonably to condition any lease or permit or other grant of rights in the Excepted Lands by Grantee to any third party so as to insure strict compliance with this provision.

Appendix C
Biological Evaluation
Other Special Status Species (Sandoval County)

Forty BLM sensitive and State of New Mexico Threatened and Endangered species are known or have the potential to occur within Sandoval County (refer to the following list). However, because of the land ownership patterns and the specific habitats used by these species, they may occur with the broad borders of Sandoval County but may not occur on BLM-administered lands within the Santo Domingo Land Exchange area.

Special Status Species (USDI, FWS 2000, NMDG&F 1998 Sivinski and Lightfoot 1995)	Listing
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	BS
Goat Peak pika (<i>Ochotona princeps nigrescens</i>)	BS
New Mexico meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	BS/ST
American martin (<i>Martes americana</i>)	ST
Fringed Myotis (<i>Myotis thysanodes</i>)	BS
Long-eared myotis (<i>Myotis evotis</i>)	BS
Long-legged myotis (<i>Myotis volans</i>)	BS
Occult little brown bat (<i>Myotis lucifugus occultus</i>)	BS
Small-footed myotis (<i>Myotis ciliolabrum</i>)	BS
Spotted bat (<i>Euderma maculatum</i>)	BS/ST
Yuma myotis (<i>Myotis yumanensis</i>)	BS
Pale Townsend's (<i>Plecotus townsendii pallescens</i>)	BS
Ferruginous hawk (<i>Buteo regalis</i>)	BS
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BS
Northern goshawk (<i>Accipiter gentilis</i>)	BS
Western burrowing owl (<i>Athene cunicularia hypugea</i>)	BS
Bald eagle (<i>Haliaeetus leucocephalus</i>)	FT/ST
American peregrine falcon (<i>Falco peregrinus anatum</i>)	BS/ST
Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	BS
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/SE
Gray Vireo (<i>Vireo vicinior</i>)	ST
White-faced ibis (<i>Plegadis chihi</i>)	BS
Whooping crane (<i>Grus americana</i>)	XN/SE
Common Black-hawk (<i>Buteo gallus anthracinus</i>)	ST
Broad-billed hummingbird (<i>Cyananthus latirostris magicus</i>)	ST
Baird's sparrow (<i>Ammodramus bairdii</i>)	BS/ST
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	BS
Flathead chub (<i>Platygobio gracilis</i>)	BS
Rio Grande silvery minnow (<i>Hybognathus amarus</i>)	FE/SE
Rio Grande sucker (<i>Catostomus plebeius</i>)	BS
Jemez Mountain salamander (<i>Plethodon neomexicanus</i>)	BS/ST
New Mexico silverspot butterfly (<i>Speyeria nokomis nitocris</i>)	BS
San Ysidro tiger beetle (<i>Cicindela willistoni funaroii</i>)	BS
William Lar's tiger beetle (<i>Cicindela fulgida williamlarsi</i>)	BS
Wrinkled marshsnail (<i>Stagnicola caperatus</i>)	SE
Gypsum phacelia (<i>Phacelia</i> sp.)	BS
Gypsum townsendia (<i>Townsendia gypsophila</i>)	BS
Knight's milk-vetch (<i>Astragalus knightii</i>)	BS
Parish's alkali grass (<i>Puccinellia parishii</i>)	BS
Wood lily (<i>Lilium philadelphicum</i>)	SE

FE = Federal Endangered, FT = Federal Threatened, XN = Nonessential experimental, BS = BLM sensitive (FWS-Species of Concern), ST = State Threatened, SE = State Endangered.

The Southwestern Willow Flycatcher, Bald Eagle, Whooping crane, and Rio Grande silvery minnow which are state listed species are also Federally listed species and have already been evaluated (refer to Biological Evaluation).

Background:

Healthy Rangeland: By implementing the conservation easements, it is anticipated that healthy rangelands would be maintained within the land exchange area.

Riparian Habitat Management: Only small isolated riparian habitats (e.g., around stock tanks) were located within the land exchange area.

Habitat Requirements: Many of these species require very specific habitats or a combination of habitats (e.g., riparian, aquatic, old growth forest, etc.) which provides the appropriate food, water and cover for survival. If the habitats necessary for the survival of particular species are not present within an area then it is assumed that the species associated with those habitats would not be present within the area. Example: A location within Sandoval County has no aquatic habitat identified within the area, consequently the Rio Grande Silvery Minnow, which occurs in Sandoval County and requires aquatic habitat to survive, would not be present and a "No Affect" determination would be appropriate.

The land exchange area was evaluated for the following specific habitat requirements to determine if certain special status species would be present within an allotment. However, many of these specific habitats were not found on BLM administered lands within the grazing allotments surveyed.

- ♦ Prairie dog colonies
- ♦ Riparian/wetland/Aquatic habitats
- ♦ Cliff habitat
- ♦ Forest (piñon/juniper, ponderosa pine) habitats
- ♦ Canyon habitat

Known Distribution: Many species have only been found in very localized situations within New Mexico (e.g., Jemez Mountain salamander-known only from high elevation in the Jemez Mountains) and would not be found on in locations outside of their specific known areas.

Accidental Migrants: Several of these species are rare or accidental migrants to northern New Mexico (e.g., White-faced ibis, common black hawk, Arctic peregrine falcon etc.). These species are only rarely seen within northern New Mexico (a few times a year) consequently it is very unlikely that these species would ever be found within the land exchange area.

Special Status Species Evaluation:

Healthy Rangeland: By maintaining a healthy rangeland condition, managing livestock grazing activities so as not to contribute to any vegetation degradation, and protecting riparian areas, a "May Affect-Not Likely to Adversely Affect" determination is appropriate for the following species.

Big free-tailed bat (<i>Nyctinomops macrotis</i>)	BS
New Mexico meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	BS/ST
Fringed Myotis (<i>Myotis thysanodes</i>)	BS
Long-eared myotis (<i>Myotis evotis</i>)	BS
Long-legged myotis (<i>Myotis volans</i>)	BS
Occult little brown bat (<i>Myotis lucifugus occultus</i>)	BS
Small-footed myotis (<i>Myotis ciliolabrum</i>)	BS
Spotted bat (<i>Euderma maculatum</i>)	BS/ST
Yuma myotis (<i>Myotis yumanensis</i>)	BS
Pale Townsend's (<i>Plecotus townsendii pallescens</i>)	BS
American peregrine falcon (<i>Falco peregrinus anatum</i>)	BS/ST
Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	BS
Ferruginous hawk (<i>Buteo regalis</i>)	BS
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BS
Western burrowing owl (<i>Athene cunicularia hypugea</i>)	BS
Gray Vireo (<i>Vireo vicinior</i>)	ST
Common Black-hawk (<i>Buteo gallus anthracinus</i>)	ST
Broad-billed hummingbird (<i>Cyananthus latirostris magicus</i>)	ST
Baird's sparrow (<i>Ammodramus bairdii</i>)	BS/ST
New Mexico silverspot butterfly (<i>Speyeria nokomis nitocris</i>)	BS
San Ysidro tiger beetle (<i>Cicindela willistoni funaroii</i>)	BS
William Lar's tiger beetle (<i>Cicindela fulgida williamlarsi</i>)	BS
Gypsum phacelia (<i>Phacelia sp.</i>)	BS
Gypsum townsendia (<i>Townsendia gypsophila</i>)	BS

Knight's milk-vetch (<i>Astragalus knightii</i>)	BS
Parish's alkali grass (<i>Puccinellia parishii</i>)	BS
Wood lily (<i>Lilium philadelphicum</i>)	SE

Riparian: Only small isolated riparian/aquatic habitats were identified within the area (e.g., around stock tanks) none of the size necessary to support any of the following species. Consequently a "No Affect" determination is appropriate for the following species.

Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	BS
White-faced ibis (<i>Plegadis chihi</i>)	BS
Flathead chub (<i>Platygobio gracilis</i>)	BS
Rio Grande sucker (<i>Catostomus plebeius</i>)	BS
Rio Grande silvery minnow (<i>Hybognathus amarus</i>)	FE/SE
Wrinkled marshsnail (<i>Stagnicola caperatus</i>)	SE

Habitat Requirements: All of the following species require very specific habitats or a combination of habitats (e.g., old growth forest, large cottonwood gallery forest, etc.) that are lacking within the land exchange area. Consequently a "No Affect" determination is appropriate for the following species.

American martin (<i>Martes americana origenes</i>)	ST
Northern goshawk (<i>Accipiter gentilis</i>)	BS
Common Black-hawk (<i>Buteo gallus anthracinus</i>)	ST
Wrinkled marshsnail (<i>Stagnicola caperatus</i>)	SE
Wood lily (<i>Lilium philadelphicum</i>)	SE

Known Distribution: The following species have only been found in very localized situations within New Mexico and would be very unlikely to be found within the land exchange area which is outside of their specific known habitat. Consequently a "No Affect" determination is appropriate for the following species.

Goat Peak pika (<i>Ochotona princeps nigrescens</i>)	BS
Jemez Mountain salamander (<i>Plethodon neomexicanus</i>)	BS/ST

Accidental Migrants: These species are rare or accidental migrants to northern New Mexico. Because these species are only rarely seen within northern New Mexico (a few times a year) it is very unlikely that these species would even use the land exchange area. Consequently a "No Affect" determination is appropriate for the following species.

White-faced ibis (<i>Plegadis chihi</i>)	BS
Common Black-hawk (<i>Buteo gallus anthracinus</i>)	ST
Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	BS

Based on Environmental Assessment for land exchange and taking into account healthy rangelands, riparian habitat management, known distribution, rare/accidental migrants, and specific habitat requirements, the BLM has determined that implementation of the proposed action for the land exchange identified within the Environmental Impact Statement, would create a "No Affect" or a "May Affect-Not Likely to Adversely Affect" situation for all of these Special Status Species.

APPENDIX E
HYDROGEOLOGIC SETTING OF
PROPOSED FEDERAL LAND EXCHANGE AREA

HYDROGEOLOGIC SETTING OF PROPOSED FEDERAL LAND
EXCHANGE AREA IN THE EASTERN HAGAN BASIN,
SANDOVAL AND SANTA FE COUNTIES, NEW MEXICO

John W. Hawley PhD
Hawley Geomatters
PO Box 4370
Albuquerque, NM 87196

8/9/99

Emeritus Senior Environmental Geologist
New Mexico Bureau of Mines and Mineral Resources

For the Bureau of Land Management, Albuquerque Field Office

This report provides a brief overview of the hydrogeologic conditions and aquifer potential of the eastern Hagan basin (Hagan embayment of Kelly, 1977) near the Sandoval-Santa Fe County line. The Hagan embayment is a southeastern extension of the Santo Domingo Basin of the Rio Grande rift structural province (Hawley, 1978).

The area described in this report is located in parts of Townships 13 and 14 North and Ranges 6 and 7 East. It extends southward from the Pueblo of Santo Domingo Reservation to near the Hagan and Puertocito townsites. The westernmost boundary is at the ruins of Tonque Pueblo (adjacent to the Pueblo of San Felipe); and the eastern border is along the western edge of Santa Fe County. The attached list of references includes most of the detailed information on the geology and water resources of the area described.

The Hagan basin is an east-tilted block of the earth's crust (or half graben) between the northern Sandia Mountains and Cuchillo de San Francisco on the west and faults (Rosario-La Bajada Zone) bounding the Cerrillos Uplift and Mesita de Juana Lopez on the east. The Hagan embayment is that part of the Hagan basin which is located between Espinazo Ridge and the La Bajada-Rosario fault zone. This triangular-shaped area opens northward into the eastern Santo Domingo Basin north of Interstate 25. The general hydrogeologic map and diagrammatic section AA' attached illustrate the basic geologic structure and topography of the area.

The initial stage of Hagan basin formation was a product of subsidence of a large northeast-trending block of the earth's crust during the early Cenozoic Laramide interval of mountain building in the Southern Rocky Mountain region. This deformation was associated with convergence and lateral movement of the tectonic plates that formed the western North American Continent at the time (Cather, 1992, 1999). Older (Mesozoic and Paleozoic) sedimentary rocks of both marine and continental origin were deeply down-warped and down-faulted as the early Hagan basin subsided. The sandstones, mudstones and conglomerates of the Galisteo Formation that filled this basin are derived from surrounding highlands that now are preserved in only a few places notably in parts of the southern Sangre de Cristo, Nacimiento, and Manzano ranges.

The next major geologic unit preserved in the eastern Hagan basin is the volcanoclastic Espinazo Formation of Oligocene age. The present Ortiz Mountains and nearby igneous-intrusive highlands extending north from South Mountain to the Cerrillos Hills are the erosional remnants of the large volcanic centers that were the source areas of the Espinazo Formation sediments and associated volcanic flow units. The volcanoclastic sediments that make up most of the Formation have a dense mudstone matrix. Smaller bodies of intrusive igneous rocks (dikes, sills, and plugs) are also present. The type area for the Formation is at Espinazo Ridge, where the unit is transitional downward into the Galisteo Formation on the western and southern parts of the ridge.

The sandstones and conglomerates of the Galisteo Formation have some potential for domestic and stockwater production from very localized groundwater sources. However, the Espinazo Formation has very limited potential, if any, for groundwater production, and it primarily serves as an aquiclude or aquitard.

The major aquifer units in the area comprise basin fill deposits of the Upper Cenozoic Santa Fe Group. These sediments, and associated basaltic and rhyolitic volcanics, were emplaced during a long interval of earth-crustal extension (continuing to the present) that produced today's Basin and Range topography at the southern margin of the Southern Rocky Mountain province. This region includes the very deep (Rio Grande rift) structural depression between the Colorado Plateau and Great Plains provinces of north-central New Mexico. The Santo Domingo Basin and the Hagan Embayment-half graben (see map and cross section) form the northeastern extension of the Albuquerque Basin, which is the largest and deepest part of the rift-basin complex.

Early stages of the Rio Grande rift (RGR) extension in late Oligocene and early Miocene time (about 25 to 15 million years ago) are represented by partly indurated deposits of the Lower Santa Fe Group (LSF) hydrostratigraphic unit (Hawley and Haase, 1992; Hawley et al., 1995), that are characterized by fine to medium-grained textural groups (clays, silty sands, and interbedded sands and silty clays, with local conglomeratic or gravelly zones; lithofacies assemblages 3, 4, 5, 7 on Table 1). Aquifer potential is low to moderate.

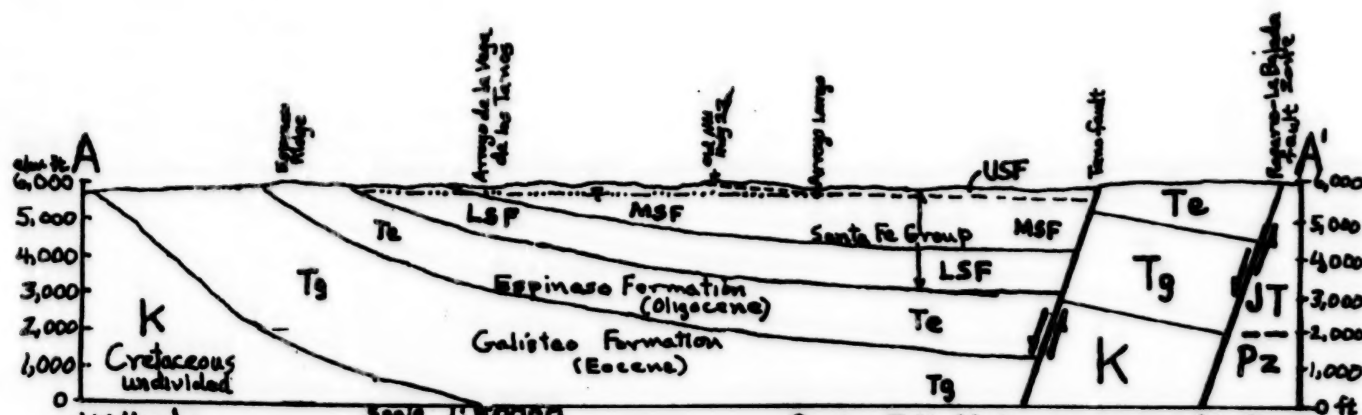
The main interval of RGR basin subsidence occurred between 7 to 15 million years ago (middle and late miocene time). The very thick basin fills deposited during this period were derived from emerging mountain highlands of the entire upper Rio Grande basin region. The Middle Santa Fe Group (MSF) hydrostratigraphic unit is generally coarser grained than the underlying LSF unit; but it is still partly indurated. Weakly cemented sandstones, siltstones, and conglomeratic sandstones and siltstones are major rocktypes; and soft sandy mudstones and silty clays are locally present. Dominant lithofacies assemblages (Table 1) are units 5, 6, 7, and 8. The MSF hydrostratigraphic unit correlates with the Tesuque Formation of the Espanola Basin and Santa Fe area, and it has a moderate to low aquifer potential (saturated horizontal hydraulic conductivities in 1 to 5 ft/day range). However, the saturated thickness of the MSF unit may locally range from 1,000 to 2,000 feet (see cross section). Transmissivity values, therefore, could be large and production of very deep wells could be potentially good (depending of course on quality of well design and construction). The most recent groundwater-flow model of the Albuquerque basin (Kernodle et al. 1995, plate 1.) assigns hydraulic conductivities of no more than 4 feet/day for the Santa Fe Group deposits in the Hagan embayment section of the Santo Domingo Basin.

Overlying Upper Santa Fe Group (USF) and younger stream-valley and basin-fill deposits are mostly in the unsaturated (vadose) zone, and they are only locally potential sources of groundwater production. Post-Santa Fe Group deposits are usually less than 100 feet thick and are not shown on the attached map and cross section.



BLANK

PAGE



Jul. Hawley
8/9/99

Scale 1:250,000
0 0.5 1.0 1.5 2.0 3.0 mi

Bedrock Units (pre-Rio Grande rift basin-fill)

- Te** Espinazo Formation (not an aquifer)
Volcaniclastic and interbedded
volcanic and intrusive igneous rocks
- Tg** Galisteo Formation (local aquifer)
Primarily sandstone and mudstone,
and some conglomerate

Mesozoic Bedrock Units

- K** Upper Cretaceous Rocks - Undivided
Marine and non-marine shales and
sandstones, with some coal beds
- JT** Jurassic and Triassic Rocks - Undivided
Primarily sandstones and mudstones,
with some gypsum and limestone

Basin-Fill Hydrostratigraphic Units

- USF** Upper Santa Fe Group
(upper Miocene & Pliocene)
- MSF** Middle Santa Fe Group
(Miocene)
- LSF** Lower Santa Fe Group
(upper Oligocene - lower Miocene)
- $\pm$ Approximate water-table position
(near USF/MSF contact between
Arroyo Largo and Tano faults)

Paleozoic Bedrock Units

- Pz** Permian Rocks - Undivided
Primarily sandstone, mudstone
and limestone

Diagrammatic Hydrogeologic Section of Hagan Embayment Between
Espinazo Ridge and the Carrilbo Uplift (Across Proposed Federal Land-
Exchange Area in T13-14N, R 6-7E, Sandoval and Santa Fe Counties, NM.

TABLE E-1

Lithofacies	Ratio of sand plus gravel to silt plus clay ¹	Bedding thickness (meters)	Bedding configuration ²	Bedding continuity (meters) ³	Bedding connectivity ⁴	Hydraulic conductivity (K) ⁵	Groundwater production potential
1	High	>1.5	Elongate to planar	>300	High	High	High
2	High to moderate	>1.5	Elongate to planar	>300	High to moderate	High to moderate	High to moderate
3	Moderate	>1.5	Planar	150 to 300	Moderate to high	Moderate	Moderate
4	Moderate to high	>1.5	Planar to elongate	30 to 150	Moderate to high	Moderate	Moderate
5	Moderate to high	0.3 to 1.5	Elongate to lobate	30 to 150	Moderate	Moderate to low	Moderate to low
5a	High to moderate	0.3 to 1.5	Elongate to lobate	30 to 150	Moderate	Moderate	Moderate
5b	Moderate	0.3 to 1.5	Lobate	30 to 150	Moderate to low	Moderate to low	Moderate to low
6	Moderate to low	0.3 to 1.5	Lobate to elongate	30 to 150	Moderate to low	Moderate to low	Moderate to low
6a	Moderate	0.3 to 1.5	Lobate to elongate	30 to 150	Moderate	Moderate to low	Moderate to low
6b	Moderate to low	0.3 to 1.5	Lobate	<30	Low to moderate	Low to moderate	Low
7	Moderate*	0.3 to 1.5	Elongate to lobate	30 to 150	Moderate	Low	Low
8	Moderate to low*	>1.5	Lobate	<30	Low to moderate	Low	Low
9	Low	<0.3	Planar	>150	Low	Very low	Very low
10	Low	<0.3	Planar	>150	Low	Very low	Very low

¹ High >2; moderate 0.5; low <0.5

² Elongate (length to width ratios >5); planar (length to width ratios 1-5); lobate (asymmetrical or incomplete planar beds).

³ Measure of the lateral extent of an individual bed of given thickness and configuration.

⁴ Estimate of the ease with which groundwater can flow between individual beds within a particular lithofacies. Generally, high sand+gravel/silt+clay ratios, thick beds, and high bedding continuity favor high bedding connectivity. All other parameters being held equal, to greater the bedding connectivity, the greater the groundwater production potential of a sedimentary unit (Hawley and Haase, 1992, p. VI).

⁵ High 10 to 30 m/day; moderate, 1 to 10 m/day; low, <1 m/day; very low, <0.1 m/day.

*Significant amounts of cementation of coarse-grained beds (as much as 30%)

SELECTED REFERENCES

- Bachman, G. O., 1975, Geologic map of the Madrid Quadrangle, Santa Fe and Sandoval Counties, New Mexico: U.S. Geological Survey, Geologic Quadrangle Map GW1268, scale 1:62,500.
- Black, B. A., 1979, Structure and stratigraphy of the Hagan Embayment: A new look: New Mexico Geological Society Guidebook 30, p. 101-106.
- Cather, S. M., 1992, Suggested revisions to the Tertiary tectonic history of north-central New Mexico: New Mexico Geological Society Guidebook 43, p. 109-122.
- Cather, S. M., 1999, Implications of Jurassic, Cretaceous, and Proterozoic piercing lines for Laramide oblique-slip faulting in New Mexico and rotation of the Colorado Plateau: Geological Society of America Bulletin, v. 111, no. 6, p. 849-868.
- Chapin, C. E. and Cather, S. M., 1994, tectonic setting of the axial basins of the northern and central Rio Grande rift: Geological Society of America Special Paper 291, p. 5-25.
- Haneberg, W. C., (ed.), 1995, Albuquerque Basin studies in hydrogeology: New Mexico Geology, v. 17, no. 4, p. 61-93.
- Haneberg, W. C. (ed.), 1998, Albuquerque Basin - Studies in hydrogeology II: New Mexico Geology, v. 17, no. 4, p. 61-93.
- Hansen, S. and Gorbach, C., 1997, Middle Rio Grande water assessment: Hydrogeologic framework: U.S. Bureau of Reclamation, Albuquerque Area Office, Final Report, Chapter 2, p. 2-1 to 2-21.
- Hawley, J.W., compiler, 1978, Guidebook to the Rio Grande rift in New Mexico and Colorado: New Mexico Bureau of Mines and Mineral Resources, Circular 163, 241
- Hawley, J.W. and Haase, C.S., 1992, compilers, Hydrogeologic framework of the northern Albuquerque Basin: New Mexico Bureau of Mines and Mineral Resources, Openfile Report OF-387, 74 p., 8 Appendices, Glossary.
- Hawley, J. W., Haase, C. S., and Lozinsky, R. P., 1995, An underground view of the Albuquerque Basin. New Mexico in Ortega-Klett, C. T., ed., Proceedings of the 39th Annual New Mexico Water Conference, "The water future of Albuquerque and Middle Rio Grande Basin": New Mexico Water Resources Research Institute Report 290, pp. 37-55.
- Kelley, V.C., 1977, Geology of Albuquerque Basin, New Mexico: New Mexico Bureau of Mines & Mineral Resources, Memoir 33, 59 p.
- Kelley, V. C., 1978, Geology of Espahola Basin: New Mexico Bureau of Mines and Mineral Resources Map GM-48, scale 1:125,000.
- Kennedy, J. F., Hibbs, B. S., Hawley, J. W., Creel, B. J., Rammenga, M., Johnson, M., Lee, M., and Dinterman, P. 1999. Trans-international Boundary aquifers in southwestern New Mexico. New Mexico Water Resources Research Institute, Technical Completion Report. Prepared for U.S. Environmental Protection Agency, variously paged.
- Kernodle, J. M., 1992, Summary of U.S. Geological Survey ground-water-flow models of basin-fill aquifers in the southwestern alluvial basins region, Colorado, New Mexico, and Texas: U.S. Geological Survey, Open-file Report 90-361, 81 p.
- Kernodle, J. M., McAda, D. P., and Thorn, C. R., 1995, Simulation of ground-water flow in the Albuquerque Basin, central New Mexico: U.S. geological Survey WaterResources Investigations Report 94-4251, 114 p.
- Lazarus, J. and Drakos, P., 1995, geohydrologic characteristics and hydrocarbon contamination of the shallow alluvial Tesuque aquifer, Santa Fe, New Mexico: New Mexico Geological Society Guidebook 46, p. 307-311.
- Lucas, S. G., 1982, Vertebrate paleontology, stratigraphy, and biostratigraphy of Eocene Galisteo Formation, north-central New Mexico: New Mexico Bureau of Mines and Mineral Resources Circular 186, 34 p.
- McAda, D. P. and Wasiolek, M., 1988, Simulation of the regional geohydrology of the Tesuque aquifer system near Santa Fe, New Mexico: U.S. Geological Survey Water-Resources Investigations Report 87-4056, 71 p.
- Smith, G. A. and Kuhle, A. J., 1998, Hydrostratigraphic implications of new geologic mapping in the Santo Domingo Basin, New Mexico: New Mexico Geology, v. 20, no. 1, p. 21-27.
- Smith, G. A. and five others, 1991, A tale of two volcanoclastic aprons: Field guide to the sedimentology and physical volcanology of the Oligocene Espinosa Formation and Miocene Peralta Tuff: New Mexico Bureau of Mines and Mineral Resources Bulletin 137, p. 87-103.
- Spiegel, Z. and Baldwin, B., 1963, Geology and water resources of the Santa Fe area, New Mexico: U.S. Geological Survey, Water-Supply Paper 1525, 258 p.
- Stearns, C. E., 1943, The Galisteo formation of north-central New Mexico: Journal of Geology, v. 51, p. 301-319.
- Stearns, C. E., 1953a, Tertiary geology of the Galisteo-Tonque area, New Mexico: Geological Society of America Bulletin, v. 64, p. 459-508.
- Stearns, C. E., 1953b, Upper Cretaceous rocks of the Galisteo-Tonque area, north-central New Mexico: American Association of Petroleum geologists bulletin, v. 37, p. 961-974.
- Stearns, C. E., 1953c, Early Tertiary vulcanism in the Galisteo-Tonque area, north-central New Mexico: American Journal of Science, v. 251, p. 415-452.
- Thorn, C. R., McAda, D. P., and Kernodle, J. M., 1993, Geohydrologic framework and hydrologic conditions in the Albuquerque Basin, central New Mexico: U.S. Geological Survey Water-resources Investigations Report 93-4149, 106 p.
- Titus, F.B., Jr., 1961, Groundwater geology of the Rio Grande trough in north-central New Mexico, with sections on the Jemez Caldera and Lucero Uplift: New Mexico Geological Society, 12th Field Conference Guidebook, p. 186-192.

APPENDIX F
GLOSSARY OF TERMS

- best management practices.** Best management practices or BMPs means schedules of activities, prohibitions of certain practices, implementation of maintenance procedures, or other measures of practices approved by the New Mexico Environment Department or a designated management agency to prevent or reduce the pollution of waters of the State.
- conservation easement.** A legal agreement a property owner makes to restrict the type and amount of development that may take place on his or her property. Each easement's restrictions are tailored to the particular property and to the interests of the individual owner.
- edge holdings.** Land adjoining Special Management Areas.
- escrow.** Delivery of a document to a third party, in trust, to be delivered to the benefited party upon satisfaction or performance of certain specified conditions.
- fee lands.** (See in fee simple).
- fee simple.** Absolute ownership of real estate or real property.
- in fee (simple).** Refers to an estate in fee simple absolute; an unqualified freehold estate (unconditional ownership)
- inholdings.** Private or State-owned land inside the boundary of a Wilderness Study Area (or Special Management Area) but excluded from it.
- lithic scatter.** Concentration of stone artifacts.
- neotropical.** Zoogeographical (the science of geographical distribution of animals) region which includes South and Central Americas, Mexico, and the West Indies.
- patent reservation.** A provision in a conveyance document excepting and retaining some rights, title, or interest in the lands conveyed, which were not previously reserved or granted but which are required or authorized by law to be retained.
- physiography (physical geography).** The study of the genesis and evolution of land forms.
- recognized environmental conditions.** The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum product into structures on the property or into the ground, ground water, or surface water of the property.
- restrictive covenant.** (Legal term)—a private agreement, usually in a deed or lease, that restricts the use and occupancy of real property, especially by specifying lot size, building lines, etc., and the uses to which the property may be put.
- species, endangered.** Any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of the Act would present an overwhelming and overriding risk to man.
- species, proposed.** Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under Section 4 of the Endangered Species Act.
- species, candidate.** Any species being considered for possible addition to the list of Endangered and Threatened Species. These are taxa for which the Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposal rule is currently precluded by higher priority listing actions.
- species of concern.** Any species for which current information indicates to the Fish and Wildlife Service that proposing to list the species as Endangered or Threatened is possibly appropriate, but for which substantial data on biological vulnerability and threat(s) are not currently known. Species of Concern receive no legal protection and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a Endangered or Threatened species.

species, threatened. Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

stratigraphy. The study of the formation, composition, sequence, and correlation of the stratified rocks as part of the earth's crust.

"subject to" clause. Clause in a conveyance identifying those rights uses, and interests in the lands being conveyed which are outstanding in third parties.

subsurface right. A landowner's right to the minerals and water below his or her property.

surface estate. Surface rights--all rights in the land excepting oil, gas, and mineral rights to underground deposits.

trust land. Property held by the United States in trust for an Indian Tribe or individual Indian.

APPENDIX G
MAILING LIST FOR
LAND EXCHANGE EIS

Albq. Hispano Chamber of Com.
Albuquerque Journal
Mike Aaron
Charles Aguilar
Pete Aguilar
Rick Allen & Lynn
Beverly Anataeus
Elizabeth Andrews
Carolyn Appelman
Antonio Archuleta & Jose
Bernadino Armijo
Rudolpho Armijo & Joe Jr.
Michael Atler
Alfredo Baca
Joe Baca
Edmund Ball
Ty Belknap
Jeff Bingaman, Senator
Nancy Brantley
Gwen Brewer
Jean Brocklebank
Bureau of Indian Affairs
Brian Burnett
Lyle Burrington
Canon De Aqua
Greg Canon
Carson National Forest
Cecil Carnes
Eva Castillo
Steve Cather
Phillip Chappel
Ralph Chavez
Lawrence Chavez
Michele Chisholm
A. Coleman
Community City of Albuq
Enid Cresson
Jim Dick
Diamond Tail Limited
Lloyd Doggett, The Honorable
Pete Domenici, Senator
Leanne Duree
Starley Duwyenie & Elisa
Mark Edwards
Embudo Valley Library
Fed. Hwy Administration
Vicki France
Gas Company of NM
Beatriz Galaviz
Alonso Gallegos
Melisandro Garcia & Rumaldito
John George
David Gomez
Moises Gonzales
Eutimio Gonzales
Ruben Gonzales
Skipper Good
Sid Goodloe
Catherine Gradi

Fred Gross Jr.
Art Gurule
Cullen Hallmark
Lee Halterman
Stephanie Ham
Steve Harris
Richard Herrera
Manuel Herrera
Harriet Hope-Miner
John Horning
Shannon Horst
David Hugh Kincaid
Richard Hughes
Rick Hurley
Kay Hutchison
Mary Jaramillo
Gary Johnson, Governor
Andy Johnson
John Kennedy
Virginia Kinney
Jerry Knepper
L. Dreyfus Natural Gas
Barbara Levin
Carolyn Loder
Connie Martinez
Leo Martinez
Norma McCallen
John McCarthy
Steve McDowell
Peter Metzner
Manuel Montano
Hilario Montano
Samuel Montano
Joseph Montano & Cleofas
Antonio Montano
Joseph Montano
Danny Montano
Michael Montano
Eloisa Montano-Fernandez
Rita Montano-Garcia
Orville Moore
Joe Moya & Catre
NM State Highway Dept
NM State Land Office
Frances Newson
Pueblo of San Felipe
Duncan Osborne
PNM ROW Dept.
Flora Padilla
Fred Parker
Carol Parker
Van Perkins
Tom Petencin
Roger Peterson
Susan Protiva
Pueblo of Santa Ana
Pueblo of Santo Domingo
Joseph Quintana

Robert Romero
Bud Ryan
John Salazar
Edward Salazar & Ernestine
Sandoval County Manager
Sanford Schemnitz
Santa Fe County Manager
Santa Fe New Mexican
Santo Domingo Land Committee
Laurie Sedlmayr
Jack Seligman
R. Seligman
Julia Seligman & Milton
Barbara Seward
Buddy Shaw
George Sherman
Marc Smith
Yvonne Smith
State Highway Department
Geoffrey Steward & Caplan,
Jessica & W. Harry
Geoffrey Stewart
Ida Tallalla
Taos County Manager
Taos Land Trust
Taos Mayor
Taos Public Library
Linda Talley-Branch
Rachel Thomas
Steven Thompson
Willie Trujillo
Trust for Public Land
Jay Urwitz
Sil Verde
William Waldman
Marvin Watts
John Wenger
Bob Wessely
Phillip West
Western Land Exchange Project
Charles Williams
Heather Wilson, Congresswoman
Richard Zierlein

APPENDIX H
SANTO DOMINGO LAND EXCHANGE
NMNM 101521
FEDERAL LAND - LEGAL LAND DESCRIPTION
NEW MEXICO PRINCIPAL MERIDIAN

<u>Land Description</u>	<u>Acreage</u>
T. 13 N., R. 6 E.,	
sec. 1, lots 5	38.06
6	40.23
7	6.31
13	<u>25.63</u>
	110.23
T. 14 N., R. 6 E.,	
sec. 9, lots 9	22.57
10	11.99
S½;	<u>320.00</u>
	354.56
sec. 10, lots 10	6.05
11	17.86
12	29.68
13	41.49
S½S½;	<u>160.00</u>
	255.08
sec. 11, lots 9	34.65
10	25.73
11	<u>17.83</u>
	78.21
sec. 13, lots 5	19.90
6	30.99
7	48.80
8	37.71
S½NW¼,	80.00
S½;	<u>320.00</u>
	537.40
sec. 14, lot 2	38.56
NW¼NE¼,	40.00
S½NE¼,	80.00
NW¼,	160.00
S½;	<u>320.00</u>
	638.56
sec. 15, all;	640.00

sec. 22, lots 1	41.85
5	29.30
6	<u>19.37</u>
	90.52

sec. 23, lots 1	39.74
2	39.69
3	36.58
4	39.88
N½	320.00
SE¼	<u>160.00</u>
	635.89

sec. 24, all;	640.00
---------------	--------

sec. 25, all;	640.00
---------------	--------

sec. 26, lots 1	40.17
2	13.11
6	26.09
7	40.74
8	40.59
9	10.09
15	36.94
16	40.69
NE¼	<u>160.00</u>
	408.42

sec. 35, lots 1	40.15
2	31.16
5	24.54
6	40.39
7	39.97
8	10.82
11	<u>35.87</u>
	222.90

T. 13 N., R. 7 E.,

sec. 6, lots 5	40.08
6	25.05
7	24.93
8	40.13
9	40.14
10	24.75
11	24.56
12	<u>39.90</u>
	259.54

sec. 7, lots 5,	31.12
6	24.37
7,	24.10
11,	<u>13.60</u>
	93.19

T. 14 N., R. 7 E.,

sec. 17, lots 10	7.40
11	<u>9.78</u>
	17.18

sec. 18, lots 5	29.35
6	18.70
7	37.42

8	48.06
SW $\frac{1}{4}$,	160.00
S $\frac{1}{2}$ SE $\frac{1}{4}$;	<u>80.00</u>
	373.53
sec. 19, all;	640.00
sec. 20, lots 1	10.01
2	10.28
3	10.54
4	<u>10.81</u>
	41.64
sec. 29, lots 1	11.06
2	<u>5.43</u>
	16.49
sec. 30, lots 1	39.00
2	19.60
3	19.45
4	34.21
5	29.15
N $\frac{1}{2}$ N $\frac{1}{2}$,	160.00
SW $\frac{1}{4}$ NW $\frac{1}{4}$,	40.00
W $\frac{1}{2}$ SW $\frac{1}{4}$;	<u>80.00</u>
	421.41
sec. 31, lots 1	25.75
2	25.39
3	25.28
4	25.17
W $\frac{1}{2}$ W $\frac{1}{2}$	<u>160.00</u>
	261.59

TOTAL ACREAGE 7,376.34
 (Sandoval &
 Santa Fe Counties)

**OFFERED LAND - SANTA FE COUNTY
LAND DESCRIPTION**

A CERTAIN TRACT OF LAND LYING AND BEING SITUATE WITHIN SECTION 18, T.16 N., R.8 E., N.M.P.M., AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF THE TRACT DESCRIBED HEREIN, MARKED BY A U.S.G.L.O. BRASS CAP MONUMENT MARKING THE CORNER COMMON TO SECTIONS 18 & 19, T. 16 N., R. 8 E.; THENCE FROM SAID POINT OF BEGINNING,

N00°13'00"E, 2646.31 FEET TO A U.S.G.L.O. BRASS CAP MONUMENT MARKING THE WEST 1/4 CORNER OF SAID SECTION 18; THENCE, N89°57'01"E, 1230.84 FEET TO A S. & W. CAPPED REBAR SET; THENCE, N00°11'39"E, 1321.58 FEET TO A S. & W. CAPPED REBAR SET; THENCE, N89°59'35"E, 833.30 FEET TO A S. & W. CAPPED REBAR SET; THENCE, N00°11'39"E, 1320.95 FEET TO A B.L.M. ALUMINUM CAP MONUMENT MARKING THE 1/4 CORNER COMMON TO SECTIONS 7 & 18, T.16 N., R.8 E., BEING THE NORTHWESTERLY CORNER OF THE TRACT DESCRIBED HEREIN; THENCE, N89°55'17"E, 2640.72 FEET TO A B.L.M. ALUMINUM CAP MONUMENT MARKING THE CORNER COMMON TO SECTIONS 7, 8, 17 & 18, T. 16 N., R. 8 E., BEING THE NORTHEASTERLY CORNER OF THE TRACT DESCRIBED HEREIN; THENCE, S00°23'27"W, 5286.57 FEET TO A B.L.M. ALUMINUM CAP MONUMENT MARKING THE CORNER COMMON TO SECTIONS 17, 18, 19 & 20 T. 16 N., R. 8 E., BEING THE SOUTHEASTERLY CORNER OF THE TRACT DESCRIBED HEREIN; THENCE, S89°53'46"W, 1311.26 FEET TO A B.L.M. ALUMINUM CAP MONUMENT MARKING THE E 1/16 CORNER COMMON TO SECTIONS 18 & 19; THENCE, S89°53'46"W, 1311.33 FEET TO A B.L.M. ALUMINUM CAP MONUMENT MARKING THE 1/4 CORNER COMMON TO SECTIONS 18 & 19; THENCE, S89°56'01"W, 2065.18 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING 470.099 ACRES, MORE OR LESS

BEING AND INTENDED TO BE TRACT A AND TRACT B ALL AS SHOWN OF THAT CERTAIN PLAT OF SURVEY TITLED "LOT SPLIT PLAT PREPARED FOR CSTW, INC., SECTION 18, T. 16 N., R. 8 E., N.M.P.M., SANTA FE COUNTY, NEW MEXICO" BY RICHARD E. SMITH, NMPLS #5837, AS PROJECT #3983, DATED AUGUST, 1994 AND FILED IN THE OFFICE OF THE SANTA FE COUNTY CLERK AS RECEPTION #899,385 DATED MARCH 30, 1995 IN BOOK 299, PAGE 031.

APPENDIX I

SELECTED LAND RESERVATIONS (BLM/Santo Domingo Exchange)

EXCEPTING AND RESERVING TO THE UNITED STATES:

1. A right-of-way thereon for ditches or canals constructed by the authority of the United States pursuant to the Act of August 30, 1890 (43 U.S.C. 945);
2. A right providing that prior to any surface disturbance or any other activity on the lands excepted from the Conservation Easement conveyed hereby having the potential to affect historic properties on lands within the W½ of Section 25 and Sections 26 and 35, T. 14 N., R. 6 E., Grantee shall obtain express written approval from the Bureau of Indian Affairs indicating that effects on historic properties have been taken into account consistent with the provisions of the National Historic Preservation Act, (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470; as amended), and shall comply fully with the provisions of such Act; but the Bureau of Indian Affairs may extinguish this proviso for all or any portion of the lands conveyed hereby upon determination that provisions of the Act have been fully satisfied.
3. * Those rights for a power line granted to Public Service Company of New Mexico, its successors or assigns, by right-of-way NMNM 036231, pursuant to the Act of March 4, 1911, as amended (43 U.S.C. 961), as to lot 7, S2NW, NWSW, sec. 13, E2SE, SWSE, sec. 14, a portion within the E2SE, sec. 22, and NWNE, NENW, S2NW, NWSW, sec. 23, T. 14 N., R. 6 E.;
4. * Those rights for a power line granted to Public Service Company of New Mexico, its successors or assigns, by right-of-way NMNM 30521, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761), as to the SESE, sec. 13, a portion of the NESE, sec. 22, N2, NWSW, sec. 23, NWNE, N2NW, sec. 24, T. 14 N., R. 6 E., and lot 10, sec. 17, lots 7, 8, S2SW, sec. 18, T. 14 N., R. 7 E.;

SUBJECT TO:

1. Valid existing rights-of-way and easements;
2. Those rights for a gas pipeline granted to Gas Company of New Mexico, its successors or assigns, by right-of-way NMSF 062654, pursuant to the Act of February 25, 1920, as amended (30 U.S.C. 185), as to lot 9, N2SW, sec. 9, T. 14 N., R. 6 E.;
3. Those rights for a road to Sandoval County and its assigns, pursuant to Rev. Stat. 2477 (43 U.S.C. 932), and assigned Serial No. NMNM 57898, as to lots 8, 12, and 14, sec. 1, T. 13 N., R. 6 E.; lots 2, 4, 7, and 10, sec. 22, lot 5, sec. 23, lots 3, 5, 10, 13 and 14, sec. 26, lots 3, 4, 9, and 10, sec. 35, T. 14 N., R. 6 E.; lot 13, sec. 6, and lots 8, 10, and 12, sec. 7, T. 13 N., R. 7 E.
4. Those reservations contained in a Reservation of Conservation Easement document to be recorded.

**A future fee schedule between the Santo Domingo Pueblo and PNM has been discussed but agreement has not been reached. If an agreement can be reached these rights-of-way will not be reserved by the BLM.*

RESERVATION OF CONSERVATION EASEMENT

Provided, however, that the lands conveyed herein, *except* those lands situated in the W½ of Section 25 and in Sections 26 and 35, Township 14 North, Range 6 East NMPM (which are herein referred to as the "Excepted Lands"), shall forever be subject to the following Restrictions, which are intended to preserve such lands in their natural state for the benefit of Grantee and its members, and Grantor shall retain forever the right to enforce such Restrictions, as set forth herein:

Restrictions: The Grantee shall have no right to conduct, or to allow any other persons or entity to conduct, any of the following activities on or with respect to any of the lands that are subject to these provisions (which lands are hereinafter referred to as the "Subject Lands"):

1. The storage, dumping, disposal, release or other use of toxic and/or hazardous materials or the storage, dumping, disposal or release of non-compostable refuse.
2. Any filling, excavating, dredging, mining, drilling and exploration for or extraction of any minerals, hydrocarbons, soils, sand, gravel, rock or other materials on or below the surface; except that nothing herein shall pertain to the activities of any utility company that is granted a valid right-of-way across the lands conveyed herein or any portion of them for installation of one or more utility lines for the transmission of electrical power, telecommunication service or natural gas, provided that Grantee shall consult with Grantor with respect to: a) the location of any proposed utility right-of-way affecting the Subject Lands, and b) the necessary restoration of lands affected by construction activity on such right-of-way and adjacent lands, prior to consenting to such right-of-way; nor shall anything herein preclude Grantee or any member of Grantee from taking clay or other soils or materials from any of the lands conveyed herein for their use in making pottery, or for any other traditional craft or religious purpose.
3. Any division, subdivision or *de facto* subdivision of the property.
4. Construction of roads.
5. Severance or transfer of any water rights attached to the property.
6. Construction or placement of any buildings, whether permanent or temporary, living quarters of any sort, mobile homes, signs, billboards or other advertising materials, or utility towers or other structures.

Rights of Enforcement: Grantor, through the Bureau of Indian Affairs or its successor agency, shall have the right to enter upon the Subject Lands to enforce the provisions of these Restrictions, and to determine that Grantee's activities are in compliance therewith, all upon prior notice to Grantee and in a manner that does not unreasonably disturb the use of the property by Grantee, consistent with the terms of these Restrictions. Grantor shall also have the right of immediate entry upon the Subject Lands if, in its sole judgment, such entry is necessary to prevent damage to or the destruction of the values protected by these Restrictions. Grantor shall further have the right to take any appropriate legal measure to enjoin any activity on or any use of the property by Grantee or any of its members or any person or entity purporting to act under its permission or authority that is in clear violation of these Restrictions and to enforce the restoration of such areas or features of the Subject Lands that may have been damaged by such activities.

General Provisions: Nothing herein shall be construed as affording to any member of the public any access or right of access to any portion of the lands conveyed herein, or as authorizing Grantor to grant any such right of access to any third person without the express prior written consent of Grantee.

The provisions of these Restrictions and Reservations shall be liberally construed to effectuate their purposes of conserving important habitat for wildlife, to protect rare or unique native plants now or later identified, to conserve the diverse vegetative communities and the wildlife inhabiting these communities, and to preserve the Subject Lands in their present, substantially undisturbed natural state, with significant topological and open-space values, in perpetuity, but without interfering with any uses of the property by the Grantee consistent with the conservation values that are protected hereby. Nothing herein shall be deemed to limit or affect Grantee's right to utilize the surface and/or minerals on or under the Excepted Lands, in such manner as Grantee chooses, including the right to lease or permit to third parties the right to utilize the surface and minerals on or under such lands in any manner that Grantee might, but Grantee shall have no right to utilize or conduct any activities on the Excepted Lands, or to permit any third party to utilize or conduct any activities on the Excepted Lands, that would cause a violation of any of the above-stated Restrictions with respect to the Subject Lands, and Grantor shall have the right reasonably to condition any lease or permit or other grant of rights in the Excepted Lands by Grantee to any third party so as to insure strict compliance with this provision.

APPENDIX J

REFERENCES CITED

- American Society for Testing and Materials (ASTM). 1993. Standard Practice for Environmental Site Assessments: Transaction Screen Process.
- Deyloff, Glenda, Lonyta Viklund, and Cherie Scheick, 1994. An Archaeological Survey of 570 Acres North of Cieneguilla, NM, Santa Fe County. Southwest Archaeological Consultants Research Series 368. Santa Fe Gray, 1989 (Minerals Section).
- Lange, Charles H. 1979. "Santo Domingo Pueblo." In Handbook of North American Indians, Vol. 9, Southwest, edited by Alfonso Ortiz, pp. 379-389. Smithsonian Institution, Washington.
- Marshall, Michael P. n.d. El Camino Real de Tierra Adentro, An Archeological Investigation: The 1990 New Mexico Historic Preservation Survey. Ms. on file at New Mexico State Historic Preservation Division, Santa Fe.
- McLemore, 1984 (Minerals Section).
- New Mexico Department of Game & Fish (NMDG&F). 1998, BISON-M (Biota Information System of New Mexico). Biological Database for New Mexico. Done in cooperation with the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Bureau of Reclamation, U.S. Forest Service, and the University of New Mexico. Santa Fe, NM. (March 26, 1998)
- Roney, John R., 1996. A Review of Existing Cultural Resources Information for the State Exchange Lands, Sandoval and Santa Fe Counties, New Mexico. Ms. on file at Bureau of Land Management, Albuquerque Field Office.
- Sivinski, R. and K. Lightfoot. 1995. Inventory of Rare and Endangered Plants of New Mexico. New Mexico Energy, Minerals, and Natural Resources Department, Forestry and Resources Conservation Division, Santa Fe, New Mexico.
- Strong, Pauline Turner. 1979. "San Felipe Pueblo." In Handbook of North American Indians, Vol. 9, Southwest, edited by Alfonso Ortiz, pp. 390-397. Smithsonian Institution, Washington.
- U.S. Environmental Protection Agency. 1986 Superfund Amendments and Reauthorization Act (SARA), Section 120(h).
- U.S. Dept. of the Interior, Bureau of Land Management, 1986, Rio Puerco Resource Management Plan and Record of Decision. Albuquerque, NM: Albuquerque District, Rio Puerco Resource Area.
- U.S. Dept. of the Interior, Bureau of Land Management, 1987a, Final Protection Plan for Ball Ranch an Area Of Critical Environmental Concern. Albuquerque, NM: Albuquerque District, Rio Puerco Resource Area.
- U.S. Dept. of the Interior, Bureau of Land Management, 1987b. "New Mexico; Off-Road Vehicle Designation Decision for the Rio Puerco Resource Area." Federal Register, April 16, 1987; Vol. 52, No. 73, pp. 12470-71. Washington, D.C.: U.S. Government Printing Office.
- Ibid. 1988a. New Mexico Statewide Wilderness Study: Final Environmental Impact Statement.
- Ibid. 1988b. Taos Resource Management Plan.
- U.S. Department of the Interior, Bureau of Land Management, 1995. Interim Management Policy for Lands under Wilderness Review.
- Ibid. 1998. Cultural Resource Areas of Critical Environmental Concern, RMP Amendment. BLM Farmington District.

U.S. Department of Interior, U.S. Fish and Wildlife Service (USDI, FWS). 2000.

New Mexico County List Endangered, Threatened, and Candidate Species and Species of Concern.

U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, NM. (January 18, 2000).

White, Leslie A. 1932. "The Pueblo of San Felipe. Memoirs of the American Anthropological Association 38. Menasha, Wis.

END

05-21-02